RETIRED: This document has been officially retired, and the base products listed herein are now considered obsolete and are no longer available for sale. Consequently, the information contained within may no longer be current. This document is provided exclusively for reference and informational purposes.

Overview

HPE ProLiant DL385 Gen10 Plus Server

The HPE ProLiant DL385 Gen10 Plus Server is redefining price/performance with the new math for virtualized compute. Powered by the latest AMD® EPYC® 7002 Series Processors , the HPE ProLiant DL385 Gen10 Plus Server offers greater processing power, faster memory speeds up to 3200 MT/s. and increased data transfer rates with PCIe Gen4 capabilities.

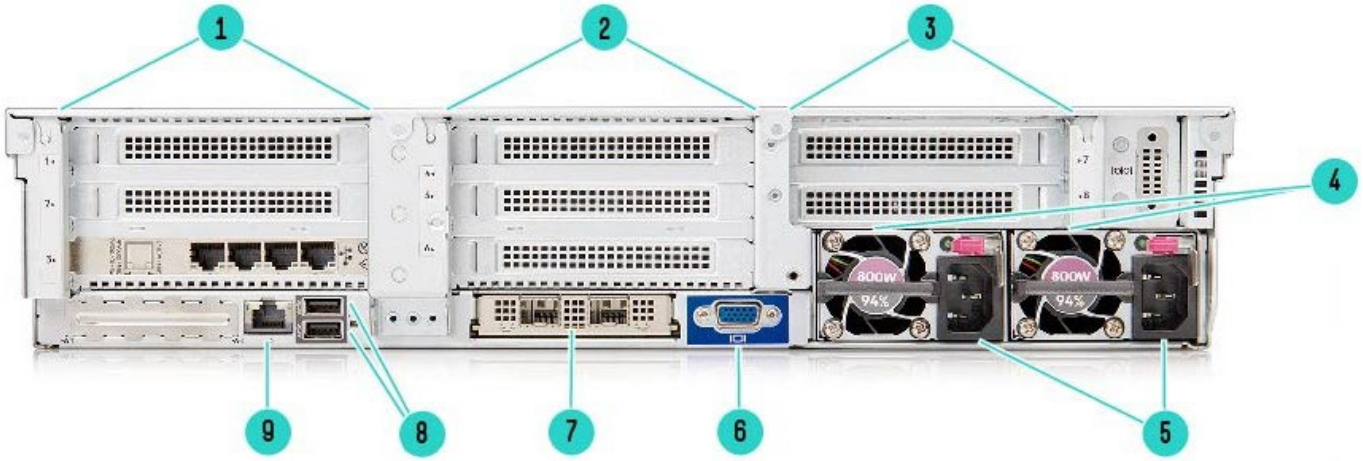
This 2P, 2U server has been designed with flexibility while delivering a high core count and large memory footprint. Choose this purpose-built platform for virtualization, High Performance Compute and memory centric workloads.



HPE ProLiant DL385 Gen10 Plus 8 SFF Server- Front View

1	Quick removal access panel	7	iLO Front Service Port
2	Box3: 8SFF SAS/SATA shown	8	USB 3.1 Gen1
3	Power On/Standby button and system power LED button	9	Serial label pull tag
4	Health LED	10	Box2: Optional 8SFF SAS/SATA or 8 NVMe (not populated)
5	NIC Status	11	Box1: Optional 8SFF SAS/SATA or 8 NVMe (not populated)
6	UID Button/LED		

Overview



HPE ProLiant DL385 Gen10 Plus Server - Rear View

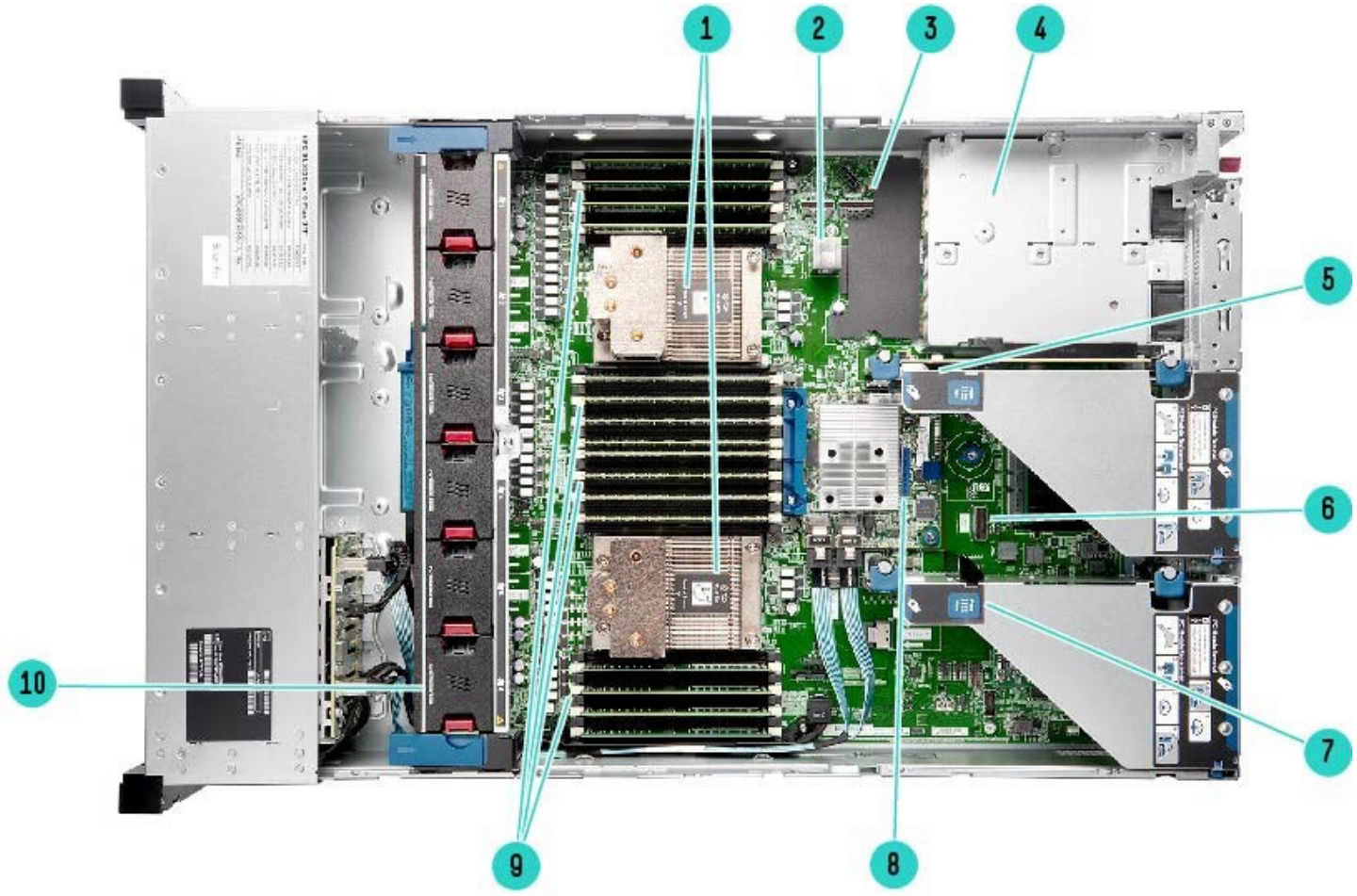
1. Primary Riser. PCIe Slots[1]
2. Optional Secondary Riser. PCIe Slots[2]
3. Optional Tertiary Riser, PCIe Slots (Slots 7-8 top to bottom)
4. HPE Flexible Slot Power Supply Bay 1 & 2
5. Power supply power connection. Bay 1 & 2
6. VGA Connector
7. OCP 3.0 Slot
8. USB 3.1 Gen1 connectors (2)
9. Dedicated iLO management port

Notes:

– [1] Slots 1-3 top to bottom, Slot 3 populated with 4 Port 10 GB NIC) Optional 2SFF rear drives

– [2] Slots 4-6 top to bottom, requires second riser card, and second processor). Optional 2 SFF rear drives

Overview



HPE ProLiant DL385 Gen10 Plus Server - Internal View

8SFF chassis with optional 2nd CPU

1	Primary & Secondary Processors	6	OCP x16 Uprgrade Connector
2	Dual USB Port	7	Primary PCIe riser, standard
3	Chassis intrusion detection connector	8	Flexible Smart Array Connector
4	Hot Plug redundant HPE Flexible Slot Power supplies	9	DDR4 DIMM slots[1]
5	Optional Secondary & Tertiary Risers	10	Fan cage shown with 6 standard Hot-plug fans[2]

Notes:

– [1] Shown half populated in 1 DPC

– [2] Max Performance fans optional

What's New:

- Supports the latest AMD EPYC 7002 Series processor with double the core density compared to the previous generation and increased memory speeds up to 3200 MT/s.
- Support for PCIe Gen4, resulting in improved networking speeds.
- Support for OCP Network Adapters.
- New SATA Read Intensive SSD drives.
- New NVMe Read Intensive and Mixed Use SSD drives.
- Support for PCIe Smart Array controllers for internal and external drives.
- European Union (EU) Lot 9 regulation, please visit: **https://www.hpe.com/us/en/about/environment/msds-specs-more.html** for more information

Overview

Platform Information

Form Factor

- 2U rack

Chassis Types

- 8 SFF with optional Universal Media Bay, and optional SFF or NVMe drive bay options
- 24 SFF bay with 8 SFF mid tray drives and 6 SFF rear drive bay option to total 38 SFF drives
- 8 LFF with Universal Media Bay, and optional SFF or NVMe drive bay options
- 12 LFF with optional 4 LFF mid-plane and optional 4 LFF to total 20 LFF drives

Notes:

- The 4 LFF rear drive box will consume space for the primary and secondary riser.
- The 8 and 12 LFF chassis also supports the 2 SFF rear drive box which allows for the user to attach a secondary or tertiary riser.
- The 8 NVMe drive option (P14578-B21) can only be leveraged in the SFF chassis and replaces Box 1, 2 or 3.
- The Universal Media Bay (P14609-B21) not available with the LFF chassis or the 24 SFF front, and can only be populated in Box 1.
- The 8 NVMe SFF can be upgraded with additional two front 8 NVMe SFF drive boxes (P14578-B21) to total 24 SFF NVMe drives, and up to 32 SFF NVMe drives with one mid 8 NVMe SFF drive cage (P14601-B21).
- The 8 LFF chassis cannot be upgraded to 12 LFF front in the field.
- 12 LFF or more drives require Max performance fan kit (P14608-B21).
- The 8 LFF chassis ships with 6 standard fans.
- CPU selection is limited 200W or lower with 4LFF mid-tray selected & DIMM blanks populate empty DIMM slots.
- If CPU power is >180W then it is required to use 2U Performance Heat sink.

System Fans

Standard – fan types included

- On SFF Chassis only, 1P models ship with 4 standard fans. The second processor option kit contains 2 additional fans.
- The 12 LFF and 24 SFF chassis ship with 6 Max performance fans as standard.
- The 8 LFF chassis ships with 6 standard fans as standard.
- Max performance fan kit is available to meet ambient temperature environments.
- Max performance fan kits are required for rear drives, or >180w Processors SKUs, or if High Performance NVMe drive being used.

Standard Features

Processors Up to 2 of the following depending on model.

Notes: For more information regarding AMD EPYC processors, please see the following: **https://www.amd.com/en/products/epyc**.

AMD EPYC Processor	Cores	Base Frequency	Max Frequency	Max Memory	Wattage	Cache	Memory
EPYC 7F72	24	3.3GHz	3.6	4TB	240	192MB	3200MT/s
EPYC 7F52	16	3.5GHz	3.8	4TB	225	256MB	3200MT/s
EPYC 7F32	8	3.6GHz	3.8	4TB	180	128MB	3200MT/s
EPYC 7742	64	2.25GHz	3.4GHz	4TB	225	256MB	3200MT/s
EPYC 7702	64	2.0GHz	3.35GHz	4TB	200	256MB	3200MT/s
EPYC 7662	64	2.0GHz	3.3	4TB	225	256MB	3200MT/s
EPYC 7642	48	2.3GHz	3.3GHz	4TB	225	192MB	3200MT/s
EPYC 7552	48	2.2GHz	3.3GHz	4TB	200	192MB	3200MT/s
EPYC 7502	32	2.5GHz	3.35GHz	4TB	180	128MB	3200MT/s
EPYC 7542	32	2.9GHz	3.4GHz	4TB	225	128MB	3200MT/s
EPYC 7532	32	2.3GHz	3.2	4TB	200	256MB	3200MT/s
EPYC 7452	32	2.35GHz	3.35GHz	4TB	155	128MB	3200MT/s
EPYC 7402	24	2.8GHz	3.35GHz	4TB	180	128MB	3200MT/s
EPYC 7352	24	2.3GHz	3.2GHz	4TB	155	128MB	3200MT/s
EPYC 7282	16	2.8GHz	3.2GHz	4TB	120	64MB	3200MT/s
EPYC 7302	16	3.0GHz	3.3GHz	4TB	155	128MB	3200MT/s
EPYC 7272	12	2.9GHz	3.2GHz	4TB	120	64MB	3200MT/s
EPYC 7262	8	3.2GHz	3.4GHz	4TB	155	128MB	3200MT/s
EPYC 7252	8	3.1GHz	3.2GHz	4TB	120	64MB	3200MT/s

Notes:

- All AMD EPYC processors can support up to 4TB of memory each.
- AMD EPYC 7003 Series processors cannot be supported in this server system. DL385 Gen10 Plus only supports AMD EPYC 7001 and 7002 Series processors.

Chipset

No chipset – System on Chip (SoC) design.

On System Management Chipset

HPE iLO 5 ASIC

Read and learn more in the **iLO QuickSpecs**.

Memory

One of the following depending on model

Type	HPE DDR4 Smart Memory, Registered (RDIMM)
DIMM Slots Available	32 16 DIMM slots per processor, 8 channels per processor, 2 DIMMs per channel
Maximum capacity (RDIMM)	8.0TB 32 x 256 GB LRDIMM @ 3200 MHz

Notes:

- The maximum memory speed is limited by the processor selection.
- When 2DIMMs are populated per channel, memory speed drops to 2933MT/S

Standard Features

Memory Protection

Advanced ECC

Advanced ECC uses single device data correction to detect and correct single and all multibit error that occurs within a single DRAM chip.

Expansion Slots

Primary Riser

Notes:

- Bus width indicates the number of physical electrical lanes running to the connector.
- There are 3 types of risers supported on Primary Slot

Primary Riser1					
Slots #	**Technology**	**Bus Width**	**Connector Width**	**Slot Form Factor**	**Notes**
1	PCIe 4.0	X8	X16	Full-height,full-length slot	Proc 1
2	PCIe 4.0	X16	X16	Full-height,full-length slot	Proc 1
3	PCIe 4.0	X8	X16	Full-height,half-length slot	Proc 1

Primary Riser2					
Slots #	**Technology**	**Bus Width**	**Connector Width**	**Slot Form Factor**	**Notes**
1	PCIe 4.0	X16	X16	Full-height,full-length slot	Proc 1
2	PCIe 4.0	X16	X16	Full-height,full-length slot	Proc 1
3	NA	NA	NA	NA	NA

Primary Riser3					
Slots #	**Technology**	**Bus Width**	**Connector Width**	**Slot Form Factor**	**Notes**
1**	NA	NA	NA	NA	NA
1	PCIe 4.0	X16	X16	Full-height,full-length slot	Proc 1
2	PCIe 4.0	X16	X16	Full-height,full-length slot	Proc 1
3	PCIe 4.0	X16	X16	Full-height,half-length slot	Proc 1

Notes: ** Default Slot1 on the Primary Riser3 is empty and not available.It requires P14600-B21 in conjunction with the Primary Riser3 to add additional x16 PCIe Gen4 in slot1.

Secondary Riser

Notes:

- Bus Width Indicates the number of physical electrical lanes running to the connector.
- There are 3 types of risers support on Secondary Slot

Secondary Riser1					
Slots #	**Technology**	**Bus Width**	**Connector Width**	**Slot Form Factor**	**Notes**
4	PCIe 4.0	X8	X16	Full-height,full-length slot	Proc 2
5	PCIe 4.0	X16	X16	Full-height,full-length slot	Proc 2
6	PCIe 4.0	X8	X16	Full-height,half-length slot	Proc 2

Secondary Riser2					
Slots #	**Technology**	**Bus Width**	**Connector Width**	**Slot Form Factor**	**Notes**
4	PCIe 4.0	X16	X16	Full-height,full-length slot	Proc 2
5	PCIe 4.0	X16	X16	Full-height,full-length slot	Proc 2
6	NA	NA	NA	NA	NA

Standard Features

Secondary Riser3					
Slots #	**Technology**	**Bus Width**	**Connector Width**	**Slot Form Factor**	**Notes**
4*	NA	NA	NA	NA	NA
4	PCIe 4.0	X16	X16	Full-height,full-length slot	Proc 2
5	PCIe 4.0	X16	X16	Full-height,full-length slot	Proc 2
6	PCIe 4.0	X16	X16	Full-height,half-length slot	Proc 2

Notes: * Default Slot4 on the Secondary Riser3 is empty and not available.It requires P14600-B21 in conjunction with the Secondary Riser3 to add additional x16 PCIe Gen4 in slot4

Tertiary Riser

Notes:

- Bus Width Indicates the number of physical electrical lanes running to the connector.
- There are 2 types of risers support on Tertiary Slot

Tertiary Riser1					
Slots #	**Technology**	**Bus Width**	**Connector Width**	**Slot Form Factor**	**Notes**
7	PCIe 4.0	X16	X16	Full-height,full-length slot	Proc 2
8	NA	NA	NA	NA	NA

Tertiary Riser2					
Slots #	**Technology**	**Bus Width**	**Connector Width**	**Slot Form Factor**	**Notes**
7	PCIe 4.0	X8	X16	Full-height,full-length slot	Proc 2
8	PCIe 4.0	X8	X16	Full-height,full-length slot	Proc 2

Storage Controllers

The Gen10/Gen10 Plus controller naming framework has been updated to simplify identification as depicted below. For a more detailed breakout of the available Gen10/Gen10 Plus Smart Array controllers visit the **HPE Smart Array Gen10 Controllers Data Sheet**. One of the following depending on model

NVMe Boot Device

- HPE NS204i-p NVMe PCIe3 OS Boot Device

Software RAID – HPE Smart Storage SR100i SR Gen10 Plus SW RAID

- All models feature an embedded storage controller, capable of operating on AHCI or SR100i modes, with embedded software supporting RAID for up to 2 U.3 NVMe SSDs.
- HPE Smart Storage SR100i SR Gen10 Plus SW RAID will operate in UEFI mode only. Legacy Mode (758959-B22) and SR100i Gen10 Plus SW RAID CAN NOT be selected together. For legacy support, an additional controller will be needed.
- SR100i cannot be selected with 878783-B21 Universal SATA HH M.2 Kit or P12965-B21 HPE NS204i-p Gen10+ NVMe Boot Device.
- SR100i can only be selected with 8SFF CTO and 8LFF CTO servers.
- SR100i cannot be selected with P4610, P4510 or P4800x SSD drives.
- SR100i cannot be selected with P26932-B21 HPE DL300 Gen10+ 2U 8SFF x4 NVMe U.2 Kit
- Embedded SATA controller by default will work in AHCI Mode. HPE Smart Storage SR100i SR Gen10 Plus SW RAID can be enabled by selecting HPE SR100i Gen10 Plus Software RAID (P28417-B21).
- Supports Microsoft Windows Server only.

Essential RAID Controller

- HPE Smart Array E208i-a SR Gen10 Controller
- HPE Smart Array E208i-p SR Gen10 Controller
- HPE Smart Array E208e-p SR Gen10 Controller

Standard Features

Performance RAID Controller

- HPE Smart Array P408i-a SR Gen10 Controller
- HPE Smart Array P408i-p SR Gen10 Controller
- HPE Smart Array P408e-p SR Gen10 Controller
- HPE Smart Array P816i-a SR Gen10 Controller

Notes: Performance RAID Controllers require the HPE Smart Storage Battery (P01366-B21) which is sold separately.

Internal Storage Devices

- One of the following depending on model

Optical Drive

- Ships standard in Performance Models
- Optional: DVD-ROM, DVD-RW

Hard Drives

- None ship standard

Maximum Internal Storage

Drive	Capacity	Configuration
Hot Plug SFF SAS	67.2TB	24+4 x 2.4 TB* (with optional rear SFF drive cage)
Hot Plug SFF SATA	56.0 TB	24+4 x 2 TB (with optional rear SFF drive cage)
Hot Plug LFF SAS	310.6 TB	12+4+4 x 14 TB + 2 x 15.3 TB (with optional mid –tray and rear LFF drive cage, plus 2 SFF SSD rear)
Hot Plug LFF SATA	310.6 TB	12+4+4 x 14 TB + 2 x 15.3 TB (with optional mid –tray and rear LFF drive cage, plus 2 SFF SSD rear)
Hot Plug SFF SAS SSD	428.4 TB	24+4 x 15.3 TB (with optional rear SFF drive cage)
Hot Plug LFF SATA SSD	49.8 TB	12+4+4 x 0.96 TB + 2 x 15.3 TB (with optional mid –tray and rear LFF drive cage, plus 2 SFF SSD rear)
Hot Plug SFF SATA SSD	215 TB	24+4 x 7.68 TB (with optional 2SFF drive cage)
Hot Plug SFF NVMe PCIe SSD	368.64TB NVMe	24 x 15.36TB NVMe

Notes: UFF drives are also supported.

Power Supply

- HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit
  Notes: Available in 94% Power Efficiency.
- HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit
  Notes: Available in 94%. Power Efficiency
- HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit
  Notes:
  - Available in 96% Power Efficiency
  - 200-240VAC power input only.
- HPE 800W Flex Slot Universal Hot Plug Low Halogen Power Supply Kit
  Notes:
  - Available in 94% Power Efficiency
  - 277VAC power input.
- HPE 800W Flex Slot 48VDC Hot Plug Low Halogen Power Supply Kit
  Notes:
  - Available in 94% Power Efficiency
  - -48VDC power input.

Standard Features

- HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit
  Notes:
  - Available in 94% Power Efficiency.
  - 200-240VAC power input only.

HPE Flexible Slot (Flex Slot) Power Supplies share a common electrical and physical design that allows for hot plug, tool-less installation into HPE ProLiant Gen10 Plus Performance Servers. Flex Slot power supplies are certified for high-efficiency operation and offer multiple power output options, allowing users to "right-size" a power supply for specific server configurations. This flexibility helps to reduce power waste, lower overall energy costs, and avoid "trapped" power capacity in the data center.

All pre-configured servers ship with a standard 6-foot IEC C-13/C-14 jumper cord (A0K02A). This jumper cord is also included with each standard AC power supply option kit. If a different power cord is required, please check the **ProLiant Power Cables** web page.

To review the power requirements for your selected system, please use the **HPE Power Advisor Tool**.

For information on power specifications and technical content visit **HPE Server power supplies**.

Interfaces

Serial	Optional, rear
Display Port	1 optional front display port via Universal Media Bay
VGA Port	1 standard, rear for all chassis
Network Ports	None. Choice of OCP or stand up card
HPE iLO Remote Management Network Port	1 Gb Dedicated
Front iLO Service Port	1 standard (Not available on 12 LFF chassis or when SID is ordered, note iLO dongle required, 880123-B21)
USB 3.1 Gen1	Up to 7 total: 1 front, 2 rear, 2 internal (secure), 2 optional USB 3.0 front via Universal Media Bay, or standard on 8 LFF chassis
SID (Systems Insight Display)	Optional

Notes: Not shipping as standard. Available as a CTO option or as a field upgrade (P14611-B21).

Operating Systems and Virtualization Software Support for ProLiant Servers

- **Windows Server 2016**
- Windows Server 2019 (Most Recent Version)
- Windows Server 2022
- VMware ESXi 6.5 U3
- VMware ESXi 6.7 U3
- **SUSE Linux Enterprise Server (SLES) 12 SP4**
- **SUSE Linux Enterprise Server (SLES) 15 SP1**
- **Red Hat Enterprise Linux (RHEL)**
- Citrix XenServer

Notes: For more information on Hewlett Packard Enterprise Certified and Supported ProLiant Servers for OS and Virtualization Software and latest listing of software drivers available for your server.
https://www.hpe.com/us/en/servers/server-operating-systems.html

Standard Features

Graphics

Integrated Video Standard

- Video modes up to 1920 x 1200@60Hz (32 bpp)
- 16MB Video Memory

HPE iLO 5 on system management memory

- 32 MB Flash
- 4 Gbit DDR 3 with ECC protection

HPE Server UEFI/Legacy ROM

Unified Extensible Firmware Interface (UEFI) is an industry standard that provides better manageability and more secured configuration than the legacy ROM while interacting with your server at boot time. HPE ProLiant Gen10 Plus servers have a UEFI Class 2 implementation and support both UEFI Mode (default) and Legacy BIOS Mode.

Notes: The UEFI System Utilities tool is analogous to the HPE ROM-Based Setup Utility (RBSU) of legacy BIOS. For more information, please visit **http://www.hpe.com/servers/uefi**.

UEFI enables numerous new capabilities specific to HPE ProLiant servers such as:

- Secure Boot and Secure Start enable for enhanced security
- Operating system specific functionality
- Support for > 2.2 TB (using GPT) boot drives
- USB 3.0 Stack

HPE Server UEFI/Legacy ROM

- Embedded UEFI Shell
- Mass Configuration Deployment Tool using iLO RESTful API that is Redfish API Conformant
- PXE boot support for IPv6 networks
- Workload Profiles for simple performance optimization

UEFI Boot Mode only:

- TPM 2.0 Support
- NVMe Boot Support
- iSCSI Software Initiator Support.
- HTTP/HTTPs Boot support as a PXE alternative.
- Boot support for option cards that only support a UEFI option ROM

Notes: For UEFI Boot Mode, boot environment and OS image installations should be configured properly to support UEFI.

Industry Standard Compliance

- ACPI 6.1 Compliant
- PCIe 4.0 Compliant
- WOL Support
- Microsoft® Logo certifications
- PXE Support
- VGA/Display Port
  Notes: This support is on the optional Universal Media Bay.
- USB 3.1 Gen1 Compliant (internal)
- USB 2.0 Compliant (external ports)
  Notes: This support is on the optional Universal Media Bay.
- Energy Star
- SMBIOS 3.1
- UEFI 2.6

Standard Features

- Redfish API
- IPMI 2.0
- Secure Digital 2.0
- Advanced Encryption Standard (AES)
- Triple Data Encrytion Standard (3DES)
- SNMP v3
- TLS 1.2
- DMTF Systems Management Architecture for Server Hardware Command Line Protocol (SMASH CLP)
- Active Directory v1.0
- European Union (EU) eco-design regulations for server and storage products, known as Lot 9, go into effect on March 1st, 2020. Among other requirements, for servers this directive establishes power thresholds for idle state, as well as efficiency and performance in active state which vary among configurations.
  Beginning on January 1st, 2024, units sold into the EU, European Economic Area (EEA), the United Kingdom, or Switzerland must include more efficient AC power supplies: 94% for multi-output and 96% for single-output. HPE Flexible Slot power supplies are single-output, and part numbers 865438-B21, P03178-B21, and P44712-B21 are 96% efficient, thus meeting requirements. HPE is on target to fulfil compliant systems ahead of time and will begin enforcing these requirements in advance to satisfy requests with the current power supplies by the set deadline.
  HPE ProLiant Gen10 servers are compliant with Lot9 requirements. For more information regarding HPE Lot 9 conformance, please visit: **https://www.hpe.com/us/en/about/environment/msds-specs-more.html**
- ASHRAE A3/A4
  Notes: For additional technical thermal details regarding ambient temperatures, humidity and features support please visit: **http://www.hpe.com/servers/ashrae**.
- UEFI (Unified Extensible Firmware Interface Forum)

Embedded Management

HPE Integrated Lights-Out (HPE iLO)

Monitor your servers for ongoing management, service alerting, reporting and remote management with HPE iLO.
Learn more at **http://www.hpe.com/info/ilo**.

UEFI

Configure and boot your servers securely with industry standard Unified Extensible Firmware Interface (UEFI).
Learn more at **http://www.hpe.com/servers/uefi**.

Intelligent Provisioning

Hassle free server and OS provisioning for 1 or more servers with Intelligent Provisioning.
Learn more at **http://www.hpe.com/servers/intelligentprovisioning**.

iLO RESTful API

iLO RESTful API is Redfish API conformance and offers simplified server management automation such as configuration and maintenance tasks based on modern industry standards. Learn more at **http://www.hpe.com/info/restfulapi**.

Server Utilities

Active Health System

The HPE Active Health System (AHS) is an essential component of the iLO management portfolio that provides continuous, proactive health monitoring of HPE servers. Learn more at **http://www.hpe.com/servers/ahs**.

Active Health System Viewer

Use the Active Health System Viewer, a web-based portal, to easily read AHS logs and speed problem resolution with HPE self-repair recommendations, to learn more visit: **http://www.hpe.com/servers/ahsv**.

Standard Features

Smart Update
Keep your servers up to date with the HPE Smart Update solution by using Smart Update Manager (SUM) to optimize the firmware and driver updates of the Service Pack for ProLiant (SPP). Learn more at **https://www.hpe.com/us/en/servers/smart-update.html**.

iLO Amplifier Pack
Designed for large enterprise and service provider environments with hundreds of HPE servers, the iLO Amplifier Pack is a free, downloadable open virtual application (OVA) that delivers the power to discover, inventory and update Gen8, Gen9 , Gen10 & Gen10 Plus HPE servers at unmatched speed and scale. Use with an iLO Advanced License to unlock full capabilities.
Learn more at **http://www.hpe.com/servers/iLOamplifierpack**.

HPE iLO Mobile Application
Enables the ability to access, deploy, and manage your server anytime from anywhere from select smartphones and mobile devices. For additional information please visit: **http://www.hpe.com/info/ilo/mobileapp**.

RESTful Interface Tool
RESTful Interface tool (iLOREST) is a single scripting tool to provision using iLO RESTful API to discover and deploy servers at scale. Learn more at **http://www.hpe.com/info/resttool**.

Scripting Tools
Provision one to many servers using your own scripts to discover and deploy with Scripting Tool (STK) for Windows and Linux or Scripting Tools for Windows PowerShell. Learn more at **http://www.hpe.com/servers/powershell**.

HPE OneView Standard
HPE OneView Standard can be used for inventory, health monitoring, alerting, and reporting without additional fees. It can monitor multiple HPE server generations. The user interface is similar to the HPE OneView Advanced version, but the software-defined functionality is not available. Learn more at **http://www.hpe.com/info/oneview**.

HPE Systems Insight Manager (HPE SIM)
Ideal for environments already using HPE SIM, it allows you to monitor the health of your HPE ProLiant Servers and HPE Integrity Servers. Also provides you with basic support for non-HPE servers. HPE SIM also integrates with Smart Update Manager to provide quick and seamless firmware updates. Learn more at **http://www.hpe.com/info/hpesim**.

Security
- UEFI Secure Boot and Secure Start support
- Immutable Silicon Root of Trust
- FIPS 140-2 validation (iLO 5 certification in progress)
- Common Criteria certification (iLO 5 certification in progress)
- Configurable for PCI DSS compliance
- Advanced Encryption Standard (AES) and Triple Data Encryption Standard (3DES) on browser
- Support for Commercial National Security Algorithms (CNSA)
- Tamper-free updates – components digitally signed and verified
- Secure Recovery – recover critical firmware to known good state on detection of compromised firmware
- Ability to rollback firmware
- Secure erase of NAND/User data
- TPM (Trusted Platform Module) 2.0 option
- Bezel Locking Kit option
- Chassis Intrusion detection option

Standard Features

Warranty

This product is covered by a global limited warranty and supported by HPE Services and a worldwide network of Hewlett Packard Enterprise Authorized Channel Partners resellers. Hardware diagnostic support and repair is available for three years from date of purchase. Support for software and initial setup is available for 90 days from date of purchase. Enhancements to warranty services are available through HPE ServicesHPE Services operational services or customized service agreements. Hard drives have either a one year or three year warranty; refer to the specific hard drive QuickSpecs for details.

Notes: Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response. Warranty repairs may be accomplished through the use of Customer Self Repair (CSR) parts. These parts fall into two categories: 1) Mandatory CSR parts are designed for easy replacement. A travel and labor charge will result when customers decline to replace a Mandatory CSR part; 2) Optional CSR parts are also designed for easy replacement but may involve added complexity. Customers may choose to have Hewlett Packard Enterprise replace Optional CSR parts at no charge. Additional information regarding worldwide limited warranty and technical support is available at:
https://www.hpe.com/support/ProLiantServers-Warranties

Optional Features

Server Management

HPE iLO Advanced

HPE iLO Advanced licenses offer smart remote functionality without compromise, for all HPE ProLiant servers. The license includes the full integrated remote console, virtual keyboard, video, and mouse (KVM), multi-user collaboration, console record and replay, and GUI-based and scripted virtual media and virtual folders. You can also activate the enhanced security and power management functionality.

HPE iLO Advanced Premium Security Edition

HPE iLO Advanced Premium Security Edition for iLO 5 includes iLO Advanced License plus high-end security modes, unique security capabilities, like Automatic FW recovery; Runtime FW verification, and Secure erase. Learn more about HPE iLO Advanced Premium Security Edition at: **http://www.hpe.com/servers/ilopremium**.

HPE GreenLake for Compute Ops Management

HPE is intelligently transforming compute management with an intuitive cloud operating experience through HPE GreenLake cloud platform to streamline and secure operations from edge-to-cloud. Automated key lifecycle tasks, for onboarding, updating, managing, and monitoring HPE servers, brings agility and greater efficiencies to wherever compute devices reside via a unified single browser-based interface. Manage single locations or multiple, distributed sites. Keep tens to thousands of servers secure with batch policy controls and automated updates.

Compute Ops Management is cloud-native software that is continually updated with new services, features, patches, and fixes. The management application resides in the HPE GreenLake cloud platform (access via **https://console.greenlake.hpe.com**) and leverages the HPE GreenLake architecture, security, and unified operations.

For a complete list of software as-a-service subscription SKUs and more information, visit the HPE GreenLake for Compute Ops Management QuickSpecs: **https://www.hpe.com/psnow/doc/a50004263enw**

For information on supported HPE servers, the complete list can be found here:
https://www.hpe.com/info/com-supported-servers

HPE OneView Advanced

HPE OneView brings a new level of automation to infrastructure management by taking a template driven approach to provisioning, updating, and integrating compute, storage, and networking infrastructure. It provides full-featured licenses which can be purchased for managing Gen8, Gen9 , Gen10 & Gen10 Plus servers. To learn more visit **http://www.hpe.com/info/oneview**.

HPE InfoSight for Servers

HPE InfoSight for Servers combines the cloud-based machine learning of InfoSight with the health and performance monitoring of Active Health System (AHS) and iLO to optimize performance and predict and prevent problems. The end result is an intelligent environment that modernizes IT operations and enhances the support experience by predicting and preventing the infrastructure issues that lead to application disruptions, wasted IT staff time and missed business opportunities.
Learn more at **https://www.hpe.com/servers/infosight**

Optional Features

Rack and Power Infrastructure

The story may end with servers, but it starts with the foundation that makes compute go – and business grow. We've reinvented our entire portfolio of rack and power products to make IT infrastructure more secure, more practical, and more efficient. In other words, we have created a stronger, smarter, and simpler infrastructure to help you get the most out of your IT equipment. As an industry leader, Hewlett Packard Enterprise is uniquely positioned to address the key concerns of power, cooling, cable management and system access.

HPE G2 Advanced and Enterprise Racks are perfect for the server room or today's modern data center with enhanced airflow and thermal management, flexible cable management, and a 10 year Warranty to support higher density computing.
HPE G2 PDUs offer reliable power in flexible form factors that operate at temperatures up to 60°C, include color-coded outlets and load segments and a low-profile design for optimal access to the rack and support for dense rack environments.

HPE Uninterruptible Power Systems are cost-effective power protection for any type workload. Some UPSs include options for remote management and extended runtime modules so you're critical dense data center is covered in power outages.

HPE KVM Solutions include a console and switches designed to work with your server and IT equipment reliably. We've got a cost-effective KVM switch for your first rack and multiple connection IP switches with remote management and security capabilities to keep your data center rack up and running.

Learn more about HPE Racks, KVM, PDUs and UPSs at **HPE Rack and Power Infrastructure**.

One Config Simple (SCE)

SCE is a guided self-service tool to help sales and non-technical people provide customers with initial configurations in 3 to 5 minutes. You may then send the configuration on for configuration help, or use in your existing ordering processes. If you require "custom" rack configuration or configuration for products not available in SCE, please contact Hewlett Packard Enterprise Customer Business Center or an Authorized Partner for assistance. **https://h22174.www2.hpe.com/SimplifiedConfig/Welcome#**

Service and Support

HPE Services

No matter where you are in your digital transformation journey, you can count on HPE Services to deliver the expertise you need when, where and how you need it. From planning to deployment, ongoing operations and beyond, our experts can help you realize your digital ambitions.

https://www.hpe.com/services

Consulting Services

No matter where you are in your journey to hybrid cloud, experts can help you map out your next steps. From determining what workloads should live where, to handling governance and compliance, to managing costs, our experts can help you optimize your operations.

https://www.hpe.com/services/consulting

HPE Managed Services

HPE runs your IT operations, providing services that monitor, operate, and optimize your infrastructure and applications, delivered consistently and globally to give you unified control and let you focus on innovation.

HPE Managed Services | HPE

Operational services

Optimize your entire IT environment and drive innovation. Manage day-to-day IT operational tasks while freeing up valuable time and resources. Meet service-level targets and business objectives with features designed to drive better business outcomes.

https://www.hpe.com/services/operational

HPE Complete Care Service

HPE Complete Care Service is a modular, edge-to-cloud IT environment service designed to help optimize your entire IT environment and achieve agreed upon IT outcomes and business goals through a personalized experience. All delivered by an assigned team of HPE Services experts. HPE Complete Care Service provides:

- A complete coverage approach -- edge to cloud
- An assigned HPE team
- Modular and fully personalized engagement
- Enhanced Incident Management experience with priority access
- Digitally enabled and AI driven customer experience

https://www.hpe.com/services/completecare

HPE Tech Care Service

HPE Tech Care Service is the operational support service experience for HPE products. The service goes beyond traditional support by providing access to product specific experts, an AI driven digital experience, and general technical guidance to not only reduce risk but constantly search for ways to do things better. HPE Tech Care Service delivers a customer-centric, AI driven, and digitally enabled customer experience to move your business forward. HPE Tech Care Service is available in three response levels. Basic, which provides 9x5 business hour availability and a 2-hour response time. Essential which provides a 15-minute response time 24x7 for most enterprise level customers, and Critical which includes a 6-hour repair commitment where available and outage management response for severity 1 incidents.

https://www.hpe.com/services/techcare

Service and Support

HPE Lifecycle Services

HPE Lifecycle Services provide a variety of options to help maintain your HPE systems and solutions at all stages of the product lifecycle. A few popular examples include:

- Lifecycle Install and Startup Services: Various levels for physical installation and power on, remote access setup, installation and startup, and enhanced installation services with the operating system.
- HPE Firmware Update Analysis Service: Recommendations for firmware revision levels for selected HPE products, taking into account the relevant revision dependencies within your IT environment.
- HPE Firmware Update Implementation Service: Implementation of firmware updates for selected HPE server, storage, and solution products, taking into account the relevant revision dependencies within your IT environment.
- Implementation assistance services: Highly trained technical service specialists to assist you with a variety of activities, ranging from design, implementation, and platform deployment to consolidation, migration, project management, and onsite technical forums.
- HPE Service Credits: Access to prepaid services for flexibility to choose from a variety of specialized service activities, including assessments, performance maintenance reviews, firmware management, professional services, and operational best practices.

Notes: To review the list of Lifecycle Services available for your product go to:
https://www.hpe.com/services/lifecycle

For a list of the most frequently purchased services using service credits, see the **HPE Service Credits Menu**

Other Related Services from HPE Services:

HPE Education Services

Training and certification designed for IT and business professionals across all industries. Broad catalogue of course offerings to expand skills and proficiencies in topics ranging from cloud and cybersecurity to AI and DevOps. Create learning paths to expand proficiency in a specific subject. Schedule training in a way that works best for your business with flexible continuous learning options.
https://www.hpe.com/services/training

Defective Media Retention

An option available with HPE Complete Care Service and HPE Tech Care Service and applies only to Disk or eligible SSD/Flash Drives replaced by HPE due to malfunction.

Consult your HPE Sales Representative or Authorized Channel Partner of choice for any additional questions and services options.

Parts and Materials

HPE will provide HPE-supported replacement parts and materials necessary to maintain the covered hardware product in operating condition, including parts and materials for available and recommended engineering improvements.

Parts and components that have reached their maximum supported lifetime and/or the maximum usage limitations as set forth in the manufacturer's operating manual, product quick-specs, or the technical product data sheet will not be provided, repaired, or replaced as part of these services.

How to Purchase Services

Services are sold by Hewlett Packard Enterprise and Hewlett Packard Enterprise Authorized Service Partners:

- Services for customers purchasing from HPE or an enterprise reseller are quoted using HPE order configuration tools.
- Customers purchasing from a commercial reseller can find services at **https://ssc.hpe.com/portal/site/ssc/**

Service and Support

AI Powered and Digitally Enabled Support Experience

Achieve faster time to resolution with access to product-specific resources and expertise through a digital and data driven customer experience

Sign into the HPE Support Center experience, featuring streamlined self-serve case creation and management capabilities with inline knowledge recommendations. You will also find personalized task alerts and powerful troubleshooting support through an intelligent virtual agent with seamless transition when needed to a live support agent.
https://support.hpe.com/hpesc/public/home/signin

Consume IT On Your Terms

HPE GreenLake edge-to-cloud platform brings the cloud experience directly to your apps and data wherever they are—the edge, colocations, or your data center. It delivers cloud services for on-premises IT infrastructure specifically tailored to your most demanding workloads. With a pay-per-use, scalable, point-and-click self-service experience that is managed for you, HPE GreenLake edge-to-cloud platform accelerates digital transformation in a distributed, edge-to-cloud world.

- Get faster time to market
- Save on TCO, align costs to business
- Scale quickly, meet unpredictable demand
- Simplify IT operations across your data centers and clouds

To learn more about HPE Services, please contact your Hewlett Packard Enterprise sales representative or Hewlett Packard Enterprise Authorized Channel Partner. Contact information for a representative in your area can be found at "Contact HPE"
https://www.hpe.com/us/en/contact-hpe.html

For more information
www.hpe.com/services

Pre-configured Models

Entry Models		
SKU Number	**P07594-B21** **P07594-291**	**P07595-B21** **P07595-291**
Model Name	HPE ProLiant DL385 Gen10 Plus 7262 3.2GHz 8-core 1P 16GB-R 8LFF 500W PS Server	HPE ProLiant DL385 Gen10 Plus 7262 3.2GHz 8-core 1P 16GB-R 8SFF 500W PS Server
Processor	7262 (8-Core, 3.2 GHz, 155W)	7262 (8-Core, 3.2 GHz, 155W)
Number of Processors	One processor	One processor
Memory	16 GB RDIMM DR 3200 MT/s (1x 16 GB)	16 GB RDIMM DR 3200 MT/s (1x 16 GB)
Network Controller	INT I350 1GbE 4p BASE-T OCP3 Adptr plus choice of OCP or standup card	INT I350 1GbE 4p BASE-T OCP3 Adptr plus choice of OCP or standup card
Storage Controller	E208i-a **Notes:** 8-Port modular Smart Array.	E208i-a **Notes:** 8-Port modular Smart Array.
Hard Drive	None ship as standard	None ship as standard
Internal Storage	8 LFF chassis (upgradeable to 12LFF in front + 4LFF mid + 4LFF rear)	8 SFF Chassis (upgradeable to 24 SFF front + 4SFF rear)
Optical Drive Bay	Optional	Optional
Optical Drive	None ship as standard	None ship as standard
PCI-Express Slots	3-slots (x8, x16, x8) as standard	3-slots (x8, x16, x8) as standard
Power Supply	1x 500W HPE FlexSlot Power Supply	1x 500W HPE FlexSlot Power Supply
Fans	6-standard fans	4-standard fans
Management	Default: HPE iLO Standard with Intelligent Provisioning, HPE OneView Standard (requires download) Optional (require licenses): HPE iLO Advanced, HPE iLO Advanced Premium Security Edition, HPE OneView Advanced	
Energy Star	3.0 certified	
Form Factor	2U Rack, LFF Easy Install rails with optional CMA	2U Rack, SFF Easy Install rails with optional CMA
Warranty	3-year parts, 3-year labor, 3-year onsite support with next business day response.	

Pre-configured Models

Base model

SKU Number	**P07596-B21** **P07596-291**
Model Name	HPE ProLiant DL385 Gen10 Plus 7302 3.0GHz 16-core 1P 32GB-R 8SFF 500W PS Server
Processor	7302 (16-Core, 3.0GHz, 155W)
Number of Processors	One processor
Memory	32 GB RDIMM DR 3200 MT/s (2x 16 GB)
Network Controller	BCM 57416 10GbE 2p BASE-T OCP3 Adptr
Storage Controller	P408i-a/2GB **Notes:** – 8-Port modular Smart Array. – Smart Storage battery included.
Hard Drive	None ship as standard
Internal Storage	8 SFF Chassis (upgradeable to 24 SFF front + 4 SFF rear)
Optical Drive Bay	Optional
Optical Drive	None ship as standard
PCI-Express Slots	3-slots (x8, x16, x8) as standard
Power Supply	1x 500W HPE FlexSlot Power Supply
Fans	4-standard fans
Management	Default: HPE iLO Standard with Intelligent Provisioning, HPE OneView Standard (requires download) Optional (require licenses): HPE iLO Advanced, HPE iLO Advanced Premium Security Edition, HPE OneView Advanced
Energy Star	3.0 certified
Form Factor	2U Rack, SFF Easy Install rails with optional CMA
Warranty	3-year parts, 3-year labor, 3-year onsite support with next business day response.

SKU Number	**P07597-B21** **P07597-291**
Model Name	HPE ProLiant DL385 Gen10 Plus 7702 2.0GHz 64-core 1P 32GB-2R 24SFF 800W PS Server
Processor	7702 (64-Core, 2.0GHz, 200W)
Number of Processors	One processor
Memory	32 GB RDIMM DR 3200 MT/s (2x 16 GB)
Network Controller	BCM 57412 10GbE 2p SFP+ OCP3 Adptr
Storage Controller	P408i-a/2GB w/Expander **Notes:** – 8-Port modular Smart Array. – Smart Storage battery included.
Hard Drive	None ship as standard
Internal Storage	24 SFF chassis
Optical Drive Bay	Optional
Optical Drive	None ship as standard
PCI-Express Slots	3-slots (x8, x16, x8) as standard
Power Supply	1x 800W HPE FlexSlot Power Supply
Fans	6 Performance fans
Management	Default: HPE iLO Standard with Intelligent Provisioning, HPE OneView Standard (requires download) Optional (require licenses): HPE iLO Advanced, HPE iLO Advanced Premium Security Edition, HPE OneView Advanced
Energy Star	3.0 certified
Form Factor	2U Rack, SFF Easy Install with CMA
Warranty	3-year parts, 3-year labor, 3-year onsite support with next business day response.

Pre-configured Models

SKU Number	**P07598-B21** **P07598-291**
Model Name	HPE ProLiant DL385 Gen10 Plus 7402 2.8GHz 24-core 2P 32GB-R 16SFF NVMe 800W PS Server
Processor	7402 (24-Core, 2.8GHz, 180W)
Number of Processors	Two processors
Memory	32 GB RDIMM DR 3200 MT/s (2x 16 GB)
Network Controller	BCM 57414 10/25GbE 2p SFP28 OCP3 Adptr
Storage Controller	E208i-p SR **Notes:** 8-lane/2-port PCIe Smart Array.
Hard Drive	None ship as standard
Internal Storage	16 NVME chassis
Optical Drive Bay	Optional
Optical Drive	None ship as standard
PCI-Express Slots	3-slots (x8, x16, x8) as standard
Power Supply	1x 800W HPE FlexSlot Power Supply
Fans	6 Performance fans
Management	Default: HPE iLO Standard with Intelligent Provisioning, HPE OneView Standard (requires download) Optional (require licenses): HPE iLO Advanced, HPE iLO Advanced Premium Security Edition, HPE OneView Advanced
Energy Star	3.0 certified
Form Factor	2U Rack, SFF Easy Install with CMA
Warranty	3-year parts, 3-year labor, 3-year onsite support with next business day response.

Country Code Key

xx1 = B21 Worldwide

xx1 = 291 Japan

Notes: The -B21 WW SKU is to be ordered in all countries other than Japan.

Configuration Information

European Union (EU) eco-design regulations for server and storage products, known as Lot 9, go into effect on March 1st, 2020. Among other requirements, for servers this directive establishes power thresholds for idle state, as well as efficiency and performance in active state which vary among configurations.
Beginning on January 1st, 2024, units sold into the EU, European Economic Area (EEA), the United Kingdom, or Switzerland must include more efficient AC power supplies: 94% for multi-output and 96% for single-output. HPE Flexible Slot power supplies are single-output, and part numbers 865438-B21, P03178-B21, and P44712-B21 are 96% efficient, thus meeting requirements. HPE is on target to fulfil compliant systems ahead of time and will begin enforcing these requirements in advance to satisfy requests with the current power supplies by the set deadline.
HPE ProLiant Gen10 servers are compliant with Lot9 requirements. For more information regarding HPE Lot 9 conformance, please visit: **https://www.hpe.com/us/en/about/environment/msds-specs-more.html**

This section lists some of the steps required to configure a Factory Integrated Model. To ensure only valid configurations are ordered, Hewlett Packard Enterprise recommends the use of an HPE approved configurator. Contact your local sales representative for information on configurable product offerings and requirements.

- Factory Integrated Models must start with a CTO Server.
- FIO indicates that this option is only available as a factory installable option.
- All Factory Integrated Models will be populated with sufficient hard drive blanks based on the number of initial hard drives ordered with the server.
- Some options may not be integrated at the factory. Contact your local sales representative for additional information.

Step 1: Base Configuration (choose one of the following configurable models)

CTO Server	HPE ProLiant DL385 Gen10 Plus 8 SFF CTO Server	HPE ProLiant DL385 Gen10 Plus 12 LFF CTO Server	HPE ProLiant DL385 Gen10 Plus 8LFF CTO Server	HPE ProLiant DL385 Gen10 Plus 24 SFF CTO Server
SKU Number	P14278-B21	P14280-B21	P14281-B21	P14279-B21
Processor	Not included as standard	Not included as standard	Not included as standard	Not included as standard
DIMM Slots	32-DIMM slots**	32-DIMM slots**	32-DIMM slots**	32-DIMM slots**
Storage Controller	Choice of HPE modular Smart Array and PCIe plug-in controller			
PCIe	Three standard in primary riser, upto Eight slots with 2 processors			
Drive Cage - included	8 SFF	12 LFF	8LFF	24 SFF
Network Controller	Choice of OCP or stand up card			
Fans	4-Standard	6 Performance	6-Standard	6-Performance
Management	HPE iLO with Intelligent Provisioning (standard), iLO Advanced and OneView (optional)			
USB	1x 3.0 standard plus iLo front service port	1x 3.0 standard plus iLo front service port	1x 3.0 standard plus iLo front service port	1x 3.0 standard plus iLo front service port

Notes:

- ** 32 DIMM slots require selection of 2 processors
- HPE offers multiple Trade Agreement Act (TAA) compliant configurations to meet the needs of US Federal Government customers. These products are either manufactured or substantially transformed in a designated country. TAA compliance is only provided when HPE options are included as part of factory integrated orders (CTO).
- TAA compliant configuration requires HPE DL385 Gen10 Plus TAA FIO Enablement Kit (P14282-B21)
- All CTO servers are Energy Star 3.0 compliant.

Configuration Information

CTO Server	8 SFF CTO Chassis	12 LFF CTO Chassis	8 LFF CTO Chassis	24 SFF CTO Chassis12
Included Drive Cage	8 SFF SAS/SATA	12 LFF Chassis3x	8 LFF SAS/SATA	8 SFF SAS/SATA
Universal Media Bay	Optional	Not available	Not available	Not available
ODD	Optional	Not available	Optional	Not available
8 SFF Drive Cage	Up to 2 Optional	Not available	Not available	Not available
8 SFF SAS/SATA/NVMe (Mid- plane)	Not available	Not available	Not available	Not available
8 NVME/SAS Bay	Up to 2 Optional	Not available	Not available	Not available
8 NVME Cage	Up to 2 Optional	Not available	Not available	Not available
2 SFF SAS/SATA (Front)	1 Optional	Not available	1 Optional	Not available
2 SFF SAS/SATA (Rear)	1 Optional	1 Optional	1 Optional	1 Optional
2 NVMe (Front)	1 Optional	Not available	1 Optional	Not available
4 LFF Mid-plane	Not available	1 Optional	1 Optional	Not available
4 LFF Rear	Not available	1 Optional	1 Optional	Not available

Notes: This aplies to CTO configurations, field upgrades may differ depending field configuration.

Step 2: Choose Required Options (only one of the following unless otherwise noted)

Please select one –L21 processor required below.
For second processor, please select the same processor model with –B21 from Core Options – HPE Processors section.
For example: first processor, select P17537-L21 then for second processor, select P17537-B21.

Notes:

- 8SFF CTO 1P models ship with 4 standard fans. The second processor option kit contains 2 additional fans. 12 LFF and 24 SFF CTO Servers ship with 6 Max performance fans included; 8 LFF CTO Servers ship with 6 Standard fans included. Max performance fan kit is available to meet ambient temperature environments are required for rear drives or NVMe SFF configurations. NVMe is limited to front install only.
- Mixing of 2 different processor models are NOT allowed.
- DDR4 memory speed will depend on the quantity and type of DIMMs installed.
- Processors with greater than 180W will ship with the High Performance heatsink.
- Processors with greater than 180W will require the Max Performance fan kit.
- AMD EPYC 7003 Series processors cannot be supported in this server system. DL385 Gen10 Plus only supports AMD EPYC 7001 and 7002 Series processors.

Step 2a: Choose Processors

Processor Option Kits

Can only be supported under 25 degree C ambient temperature with LFF/SFF +Mid tray configurations

AMD EPYC 7F32 (3.7GHz/8-core/180W) FIO Processor Kit for HPE ProLiant DL385 Gen10 Plus P28784-L21

Notes: Ships with High Performance Heatsink.

AMD EPYC 7302 (3.0GHz/16-core/155W) FIO Processor Kit for HPE ProLiant DL385 Gen10 Plus P17540-L21

Notes: Ships with standard Heatsink.

AMD EPYC 7282 (2.8GHz/16-core/120W) FIO Processor Kit for HPE ProLiant DL385 Gen10 Plus P21727-L21

Notes: Ships with standard Heatsink.

AMD EPYC 7402 (2.8GHz/24-core/180W) FIO Processor Kit for HPE ProLiant DL385 Gen10 Plus P17543-L21

Notes: Ships with Standard Heatsink.

AMD EPYC 7542 (2.9GHz/32-core/225W) FIO Processor Kit for HPE ProLiant DL385 Gen10 Plus P21718-L21

Notes: Ships with High Performance Heatsink.

AMD EPYC 7702 (2.0GHz/64-core/200W) FIO Processor Kit for HPE ProLiant DL385 Gen10 Plus P17546-L21

Notes: Ships with High Performance Heatsink.

Configuration Information

CPU Support in Different Chassis Configurations		
Chassis config	**25C ambient**	**35C ambient**
8SFF, 16SFF SAS/SATA with standard fan & standard heat sink	240W	240W
8SFF, 16SFF NVMe with Perf fan & Perf heat sink	240W	240W
24SFF, >=1SFF NVMe, w/ Perf Fan & Perf heat sink kit	240W	240W
12LFF w/ Perf Fan & Perf heat sink kit	240W	240W
8LFF w Standard Fan and Standard Heat sink	240W	240W
12+4LFF, 12+4+4LFF w Perf Fan & Perf Heat sink kit	240W	240W
24+8SFF w/ Perf Fan & Perf Heat sink kit	N/A until Feb'20	N/A until Feb'20

Step 2b: Choose Memory Options

Please select one or more memory from below.
For new Gen10 Plus memory population rule whitepaper and optimal memory performance guidelines, please go to:
http://www.hpe.com/docs/amd-population-rules-Gen10Plus
For Gen10 Plus memory speed table, please go to: **https://www.hpe.com/psnow/doc/a50000674enw**

Notes:

- Memory DIMM availability with a server platform is dependent upon completion of certification testing.
- The maximum memory speed is a function of the memory type, memory configuration, and processor model.

Registered DIMMs (RDIMMs)

HPE 8GB (1x8GB) Single Rank x8 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit	P07638-B21
HPE 16GB (1x16GB) Single Rank x4 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit.	P07640-B21
HPE 16GB (1x16GB) Dual Rank x8 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit	P07642-B21
HPE 32GB (1x32GB) Dual Rank x4 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit	P07646-B21
HPE 64GB (1x64GB) Dual Rank x4 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit	P07650-B21
HPE 128GB (1x128GB) Quad Rank x4 DDR4-3200 CAS-22-22-22 Load Reduced Smart Memory Kit	P07652-B21
HPE 256GB (1x256GB) Octal Rank x4 DDR4-3200 CAS-26-22-22 Load Reduced 3DS Smart Memory Kit	P07654-B21

Notes:

- Mixing of x4 & x8 memory is not allowed
- 3200 MT/s memory SKUs offer a transfer rate of 3200 MT/s at 1 DIMM per channel and 2933 MT/s at 2 DIMMs per channel

Rules for mixing different types of DIMMs			
	RDIMM	**LRDIMM**	**3DS LRDIMM (256GB)**
RDIMM	Allowed	Not Allowed	Not Allowed
LRDIMM	Not Allowed	Allowed	Not Allowed
3DS LRDIMM (256GB)	Not Allowed	Not Allowed	Allowed

Memory Blank Kit

HPE DDR4 DIMM Blank Kit	P07818-B21

Notes: Required only when configuration includes 4LFF Mid Tray kit and a processor(s) that is 126W and above.

Step 2c: Choose Power Supplies

Select one or two power supplies from below.
Notes: Mixing of 2 different power supplies is NOT allowed.

HPE Flex Slot Power Supplies

HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	865408-B21
HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit	865438-B21

Configuration Information

HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	865414-B21
HPE 800W Flex Slot -48VDC Hot Plug Low Halogen Power Supply Kit	865434-B21
HPE 800W Flex Slot Universal Hot Plug Low Halogen Power Supply Kit	865428-B21
HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	830272-B21

Notes:

- Select one or more power supplies.
- 1600W Power supplies only support high line voltage (200VAC to 240VAC).
- Prior to making a power supply selection it is highly recommended that the HPE Power Advisor is run to determine the right size power supply for your server configuration. The HPE Power Advisor is located at: **http://www.hpe.com/info/hppoweradvisor**.
- All power supplies in a server should match. Mixing Power Supplies is not supported.
- HPE ProLiant servers ship with an IEC-IEC power cord used for rack mounting with Power Distribution Units (PDUs). Visit **HPE power cords** for a full list of optional power cords.

Step 3: Choose Additional Factory Integratable Options

One of the following from each list may be selected if desired at time of factory integration

HPE Unique Options

HPE DL325 Gen10 Plus TAA-compliant FIO Enablement Kit	P14282-B21

Notes: This kit enables TAA compliance. HPE offers multiple Trade Agreement Act (TAA) compliant configurations to meet the needs of US Federal Government customers. These products are either manufactured or substantially transformed in a designated country. TAA compliance is only provided when HPE options are included as part of factory integrated orders (CTO)

HPE ProLiant DL38X Gen10 Plus 2LFF Tertiary Riser Cage Kit	P14580-B21

Notes:

- Supported only on 8 LFF & 12 LFF Models
- When this option is selected, secondary riser cannot be selected
- This option occupies tertiary riser slot

HPE DL38X Gen10 Plus x8/x8 Tertiary Riser Kit	P14581-B21

Notes:

- Supports Full Height, Full-length cards and Full Height, Half- length cards.
- Bus width x8, x8, Connector Width x16, x16.

HPE DL38X Gen10 Plus x16/x16 Slot 1/2 FIO Riser Kit	P14592-B21

Notes:

- Supports Full Height and Full length cards.
- Bus width x16, x16, Connector Width x16, x16
- Slot 1 or 2 in Primary or Secondary location

HPE DL38X Gen10 Plus x16/x16 Slot 2/3 FIO Riser Kit	P14599-B21

Notes:

- Slot 1 or 2 in Primary or Secondary location
- Supports Full Height and Full length cards.
- Bus width x16, x16, Connector Width x16, x16
- Requires the option HPE Gen10 Plus Slot1 x16 Adder S2/3 Rsr Kit (P14600-B21), to add additional x16 PCIe Gen4 in slot 1

HPE DL38X Gen10 Plus 8NVMe Balanced Support FIO Bundle	P19358-B21

Notes:

- This is a trigger SKU having the below list of options bundled together . This bundle SKU needs to be selected in order to support 8 NVMe Drives with two processors
  - HPE DL Gen10 Plus 8NVMe CPU1/2 Cable kit (P22829-B21)

Configuration Information

- HPE DL Gen10 Plus 8SFF x4NVMe/SAS SC Kit (P14578-B21)
- HPE DL Gen10 Plus Max Performance Fan (P14608-B21)

– Requires 2nd Processor

HPE DL385 Gen10 Plus 8NVMe Direct Support FIO Bundle P22750-B21

Notes:

– This is a trigger SKU having the below list of options bundled together . This bundle SKU needs to be selected in order to support 8 NVMe Drives with one processor only
- HPE DL38X Gen10 Plus 8NVMe CPU1 Cable Kit (P22834-B21)
- HPE DL38X Gen10 Plus AROC to NVMe Adapter Kit (P14602-B21)
- HPE DL385 Gen10 Plus 8SFF NVMe/SAS Box1-3 Smart Carrier Drive Cage Kit (P14578-B21)
- HPE DL38X Gen10 Plus Max Performance Fan Kit (P14608-B21)

– This requires only one processor.

HPE DL385 Gen10 Plus 16NVMe Balanced Support FIO Bundle P22751-B21

Notes:

– This is a trigger SKU having the below options bundled together . This bundle SKU needs to be selected in order to support 16 NVMe drives
- HPE DL38X Gen10 Plus 16NVMe CPU1/2 Cable Kit (P22835-B21)
- HPE DL38X Gen10 Plus AROC to NVMe Adapter Kit (P14602-B21)
- HPE DL385 Gen10 Plus 8SFF NVMe/SAS Box1-3 Smart Carrier Drive Cage Kit (P14578-B21)
- HPE DL38X Gen10 Plus Max Performance Fan Kit (P14608-B21)

– This requires 2nd Processor to be selected

HPE DL385 Gen10 Plus 24NVMe U.3 Balanced Direct FIO Enablement Kit P25337-B21

Notes:

– When this option is selected the following options MUST be populated in the config:
- HPE DL385 Gen10+ 8SFF NVMe/SAS SC Kit (P14578-B21) Qty-3
- HPE DL38X Gen10+ AROC-NVMe Kit (P14602-B21) Qty-1
- HPE DL385 Gen10+ x16 Re-Timer Card (P25527-B21) Qty-2
- HPE DL38X Gen10+ Max Perf Fan Kit (P14608-B21) Qty-1
- HPE DL38X Gen10+ 8NVMe CPU1/2 Cbl Kit (P22829-B21) Qty-1
- HPE DL Gen10 Plus 16NVMe CPU1/2 Cable Kit (P22835-B21) Qty-1
- HPE DL385 Gen10+ Re-Timer PRI Cable Kit (P25602-B21) Qty-2
- HPE DL385 Gen10+ Re-Timer SEC Cable Kit (P25604-B21) Qty-2
- Must select 2nd Processor
- Must select secondary Riser
- This Option and AROC Controller can not be selected together

– When this option is selected HPE 8SFF Front Remove SPEC Perf FIO (873763-b21) MUST be selected

– When this option is selected HPE DL38X Gen10+ High Perf Heat Sink Kit (P14610-B21) MUST be selected

HPE DL385 Gen10 Plus 8NVMe U.2 Balanced FIO Enablement Kit P25333-B21

Notes:

– This is a trigger SKU having the below options bundled together . This bundle SKU needs to be selected in order to support 8 U.2 NVMe drives balanced across 2 processors
- When this option is selected the following options MUST be populated in the config:
- HPE DL Gen10 Plus 8NVMe CPU1/2 Cable kit (P22829-B21) Qty-1
- HPE DL38X NVMe 8 SSD Express Bay (826689-B21) Qty-1
- HPE DL Gen10 Plus Max Perf Fan (P14608-B21) Qty-1
- Must select 2nd Processor

– This option and HPE DL38X Gen10+ Slot1 x16 Slot2/3 Kit (P14600-B21) CAN NOT be selected together

– When this option is selected HPE DL38X Gen10+ High Perf Heat Sink Kit (P14610-B21) MUST be selected

Configuration Information

HPE DL385 Gen10 Plus 8NVMe U.2 Direct FIO Enablement Kit P25334-B21

Notes:

- This is a trigger SKU having the below options bundled together . This bundle SKU needs to be selected in order to support 8 U.2 NVMe drives
  - When this option is selected the following options MUST be populated in the config:
  - HPE DL Gen10 Plus 8NVMe CPU1 Cable Kit (P22834-B21) Qty-1
  - HPE Gen10 Plus AROC NVMe Adpt Kit (P14602-B21) Qty-1
  - HPE DL38X NVMe 8 SSD Express Bay (826689-B21) Qty-1
  - HPE DL Gen10 Plus Max Perf Fan (P14608-B21) Qty-1
- This Option and AROC Controller can not be selected together
- When this option is selected HPE DL38X Gen10+ High Perf Heat Sink Kit (P14610-B21) MUST be selected
- When this option is selected, P14600-B21 CAN NOT be selected with P14599-B21 Primary Riser kit.

HPE DL385 Gen10 Plus 16NVMe U.2 Balanced Direct FIO Enablement Kit P25335-B21

Notes:

- This is a trigger SKU having the below options bundled together . This bundle SKU needs to be selected in order to support 16 U.2 NVMe drives
  - When this option is selected the following options MUST to be populated in the config:
  - HPE DL Gen10 Plus 16NVMe CPU1/2 Cable Kit (P22835-B21) Qty-1
  - HPE Gen10 Plus AROC NVMe Adpt Kit (P14602-B21) Qty-1
  - HPE DL38X NVMe 8 SSD Express Bay (826689-B21) Qty-2
  - HPE DL Gen10 Plus Max Perf Fan (P14608-B21) Qty-1
  - Must select 2nd Processor
- This Option and AROC Controller can not be selected together
- When this option is selected HPE DL38X Gen10+ High Perf Heat Sink Kit (P14610-B21) MUST be selected
- This option and HPE DL38X Gen10+ Slot1 x16 Slot2/3 Kit (P14600-B21) CAN NOT be selected together

HPE DL385 Gen10 Plus 24NVMe U.2 Balanced Direct FIO Enablement Kit P25336-B21

Notes:

- This is a trigger SKU having the below options bundled together . This bundle SKU needs to be selected in order to support 24 U.2 NVMe drives
  - When this option is selected the following options MUST be populated in the config:
  - HPE DL38X NVMe 8 SSD Express Bay (826689-B21) Qty-3
  - HPE DL38X Gen10+ AROC-NVMe Kit (P14602-B21) Qty-1
  - HPE DL385 Gen10+ x16 Re-Timer Card (P25527-B21) Qty-2
  - HPE DL38X Gen10+ Max Perf Fan Kit (P14608-B21) Qty-1
  - HPE DL38X Gen10+ 8NVMe CPU1/2 Cbl Kit (P22829-B21) Qty-1
  - HPE DL Gen10 Plus 16NVMe CPU1/2 Cable Kit (P22835-B21) Qty-1
  - HPE DL385 Gen10+ Re-Timer PRI Cable Kit (P25602-B21) Qty-2
  - HPE DL385 Gen10+ Re-Timer SEC Cable Kit (P25604-B21) Qty-2
  - Must select 2nd Processor
  - Must select secondary Riser
- This Option and AROC Controller can not be selected together
- When this option is selected HPE DL38X Gen10+ High Perf Heat Sink Kit (P14610-B21) MUST be selected
- This option and HPE DL38X Gen10+ Slot1 x16 Slot2/3 Kit (P14600-B21) CAN NOT be selected together

HPE DL38X Gen10 8 SFF Front Cage Removal FIO Option 873763-B21

Notes:

- This is a factory integrated only option.
- Will remove the Primary 8SFF cage in Box 3 of the 8SFF and replace with a Box blank.

Configuration Information

HPE Security Options

HPE Server Security Optimized Service for HPE ProLiant (R9S59A) is an optional security upgrade intended for agencies and regulated industries with enhanced security and compliance needs. Applying this option to a DL3XX Gen10/Gen10 Plus CTO server ensures it is hardened by turning on advanced safeguards in place against cyber-exploits throughout the server lifecycle. An iLO Advanced License required for High Security Mode and compatible intrusion detection device option kits are prerequisites for the full optimization service.

Step 4: Choose additional options for Factory Integration from Core and Additional Options sections below

Core Options

Some options may not be integrated at the factory. To ensure only valid configurations are ordered, Hewlett Packard Enterprise recommends the use of an HPE approved configurator. Contact your local sales representative for additional information.

HPE Unique Options

HPE DL38X Gen10 Plus Universal Media Bay Kit P14609-B21

Notes:

- The HPE DL385 Gen10 Plus Universal Media bay provides front Display Port and 2xUSB 2.0; plus support for 2x SFF front drives or 2 NVMe front drives and ODD support (Not included); and can only be located in Box1 in either an 8 SFF or 8+8 SFF model.
- This is a 8SFF model option only.
- This option cannot be ordered when Qty=2 of following options is selected : HPE DL380 Gen10 Box1/2 Cage Bkpln Kit (826691-B21) and HPE DL Gen10 Plus 8SFF x4NVMe/SAS SC Kit (P14578-B21)

HPE DL38X Gen10 Plus System Insight Display Kit P14611-B21

HPE DL38X Gen10 Plus AROC to NVMe Adapter Kit P14602-B21

Notes: Used to support upto 16 NVMe drives with Modular Controller (AROC)

HPE DL38X Gen10 Plus Maximum Performance Fan Kit P14608-B21

Notes:

- For elevated ambient temperature support please see: **http://www.hpe.com/servers/ashrae**
- Max Performance fan kit consists of 6 fans, these will need to replace all the standard fans in the unit, and fill all 6 fan cages.
- The 12 LFF and 24 SFF models (including field upgrades to 24 SFF) will already include 6 Max Performance fans.
- The Max Performance fan kit is needed to support certain Passive GPGPU (Graphics cards) configurations; or ASHRAE operating environments.

HPE DL38X Gen10 Plus High Performance Heat Sink Kit P14610-B21

Notes: Processor kits above 180W include a High Performance Heatsink.

HPE Gen10 Plus Chassis Intrusion Detection Kit P14604-B21

Notes: This provides a physical connection from the chassis board and hood and detects any physical intrusion into the chassis, providing security during the entire supply chain process of shipping, receiving, distribution, and operation.

HPE DL38X Gen10 SFF Box1/2 Cage/Backplane Kit 826691-B21

Notes: Supports 8 SAS/SAFA SFF drives in Box 1 or 2 to a max of 24 SFF SAS/SATA front

HPE DL38X Gen10 Plus 12Gb SAS Expander Card P23388-B21

Notes:

- Firmware must be refreshed to v5.09 (or above) to support UBM type backplanes (LFF SAS SATA and U.3)
- HPE DL38X Gen10+ 12LFF SAS Exp Cbl Kit (P23392-B21) must be selected when Expander Card is selected for 12LFF or 8LFF CTO servers.

HPE Processors

Processor Option Kits

Can only be supported under 25 degree C ambient temperature with LFF/SFF +Mid tray configurations

AMD EPYC 7F32 (3.7GHz/8-core/180W) Processor Kit for HPE ProLiant DL385 Gen10 Plus P28784-B21

Notes: Ships with High Performance Heatsink.

AMD EPYC 7302 (3.0GHz/16-core/155W) Processor Kit for HPE ProLiant DL385 Gen10 Plus P17540-B21

Notes: Ships with standard Heatsink.

AMD EPYC 7282 (2.8GHz/16-core/120W) Processor Kit for HPE ProLiant DL385 Gen10 Plus P21727-B21

Notes: Ships with standard Heatsink.

Core Options

AMD EPYC 7402 (2.8GHz/24-core/180W) Processor Kit for HPE ProLiant DL385 Gen10 Plus	P17543-B21

Notes: Ships with standard Heatsink.

AMD EPYC 7542 (2.9GHz/32-core/225W) Processor Kit for HPE ProLiant DL385 Gen10 Plus	P21718-B21

Notes: Ships with High Performance Heatsink.

AMD EPYC 7702 (2.0GHz/64-core/200W) Processor Kit for HPE ProLiant DL385 Gen10 Plus	P17546-B21

Notes:

- Ships with High Performance Heatsink.
- DDR4 memory speed will depend on the quantity and type of DIMMs installed.
- The xxxxxx-L21 is the first processor shipped, the xxxxxx-B21 is the 2nd processor and ships with 2 additional fans for factory or field installation.
- Processors above 180W use a High Performance Heatsink and the high performance fan kit.
- Processors with greater than 180W do not include the fans as the selection of processors above 180W requires the High Performance fan kit that comes with 6 fans.
- AMD EPYC 7003 Series processors cannot be supported in this server system. DL385 Gen10 Plus only supports AMD EPYC 7001 and 7002 Series processors.

Memory Selection

To streamline the configuration process for HPE ProLiant Gen10 Plus servers and to provide the best product availability, Hewllet Packard Enterprise recommends memory from the list located here: **http:hpe.com/products/recommend**.
Best product availability is limited to US, Canada, and Latin America at this time.

HPE Memory

Registered DIMMs (RDIMMs)

HPE 8GB (1x8GB) Single Rank x8 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit	P07638-B21
HPE 16GB (1x16GB) Single Rank x4 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit.	P07640-B21
HPE 16GB (1x16GB) Dual Rank x8 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit	P07642-B21
HPE 32GB (1x32GB) Dual Rank x4 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit	P07646-B21
HPE 64GB (1x64GB) Dual Rank x4 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit	P07650-B21

Load Reduced DIMMs (LRDIMMs)

HPE 128GB (1x128GB) Quad Rank x4 DDR4-3200 CAS-22-22-22 Load Reduced Smart Memory Kit	P07652-B21
HPE 256GB (1x256GB) Octal Rank x4 DDR4-3200 CAS-26-22-22 Load Reduced 3DS Smart Memory Kit	P07654-B21

Notes:

- Memory DIMM availability with a server platform is dependent upon completion of certification testing.
- The maximum memory speed is a function of the memory type, memory configuration, and processor model.
- Mixing of x4 & x8 memory is not allowed
- 3200 MT/s memory SKUs offer a transfer rate of 3200 MT/s at 1 DIMM per channel and 2933 MT/s at 2 DIMMs per channel

HPE Optical Drives

HPE 9.5mm SATA DVD-ROM Optical Drive	726536-B21

Notes:

- HPE DL385 Gen10 Plus Universal Media Bay Kit (P14609-B21) is required for this option on a SFF model.
- Supported only on 8 SFF & 8 LFF Models

Core Options

HPE 9.5mm SATA DVD-RW Optical Drive	726537-B21

Notes:

- HPE DL385 Gen10 Plus Universal Media Bay Kit (P14609-B21) is required for this option on a SFF model.
- Supported only on 8 SFF & 8 LFF Models

HPE Mobile USB DVD-RW Optical Drive	701498-B21

HPE Drives

Enterprise - 12G SAS - SFF Drives

HPE 300GB SAS 12G Mission Critical 15K SFF SC 3-year Warranty Multi Vendor HDD	870753-B21
HPE 300GB SAS 12G Mission Critical 10K SFF SC 3-year Warranty Multi Vendor HDD	872475-B21
HPE 600GB SAS 12G Mission Critical 15K SFF SC 3-year Warranty Multi Vendor HDD	870757-B21
HPE 600GB SAS 12G Mission Critical 10K SFF SC 3-year Warranty Multi Vendor HDD	872477-B21
HPE 900GB SAS 12G Mission Critical 15K SFF SC 3-year Warranty Multi Vendor HDD	870759-B21
HPE 1.2TB SAS 12G Mission Critical 10K SFF SC 3-year Warranty Multi Vendor HDD	872479-B21
HPE 1.8TB SAS 12G Mission Critical 10K SFF SC 3-year Warranty 512e Multi Vendor HDD	872481-B21
HPE 2.4TB SAS 12G Mission Critical 10K SFF SC 3-year Warranty 512e Multi Vendor HDD	881457-B21

Midline - 12G SAS - SFF Drives

HPE 1TB SAS 12G Business Critical 7.2K SFF SC 1-year Warranty HDD	832514-B21
HPE 2TB SAS 12G Business Critical 7.2K SFF SC 1-year Warranty 512e HDD	765466-B21

Midline - 12G SAS - LFF Drives

HPE 2TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Multi Vendor HDD	833926-B21
HPE 4TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Multi Vendor HDD	833928-B21
HPE 6TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty 512e Multi Vendor HDD	861746-B21
HPE 8TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty 512e Multi Vendor HDD	834031-B21
HPE 12TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e Multi Vendor HDD	881781-B21
HPE 14TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e Multi Vendor HDD	P09155-B21
HPE 16TB SAS 12G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD	P23608-B21

Midline - 6G SATA - SFF Drives

HPE 1TB SATA 6G Business Critical 7.2K SFF SC 1-year Warranty HDD	655710-B21
HPE 2TB SATA 6G Business Critical 7.2K SFF SC 1-year Warranty 512e HDD	765455-B21

Midline - 6G SATA - LFF Drives

HPE 1TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Multi Vendor HDD	861686-B21
HPE 2TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Multi Vendor HDD	861681-B21
HPE 4TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Multi Vendor HDD	861683-B21
HPE 6TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty 512e Multi Vendor HDD	861742-B21
HPE 8TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty 512e Multi Vendor HDD	834028-B21
HPE 12TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e Multi Vendor HDD	881787-B21
HPE 16TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD	P23449-B21
HPE 18TB SATA 6G Business Critical 7.2K LFF LP 1-year Warranty Helium 512e ISE Multi Vendor HDD	P37678-B21

SSD Selection

To streamline the configuration process for HPE ProLiant Gen10 Plus servers and to provide the best product availability, HPE recommends SSDs from the list located here: **http://www.hpe.com/products/recommend**.

Read Intensive - 12G SAS - SFF - Solid State Drives

HPE 960GB SAS 12G Read Intensive SFF SC Value SAS Multi Vendor SSD	P36997-B21
HPE 960GB SAS 12G Read Intensive SFF SC Multi Vendor SSD	P49028-B21
HPE 1.92TB SAS 12G Read Intensive SFF SC Value SAS Multi Vendor SSD	P36999-B21

Core Options

HPE 1.92TB SAS 12G Read Intensive SFF SC Multi Vendor SSD	P49030-B21
HPE 3.84TB SAS 12G Read Intensive SFF SC Value SAS Multi Vendor SSD	P37001-B21
HPE 3.84TB SAS 12G Read Intensive SFF SC Multi Vendor SSD	P49034-B21
HPE 7.68TB SAS 12G Read Intensive SFF SC Value SAS Multi Vendor SSD	P37003-B21
HPE 7.68TB SAS 12G Read Intensive SFF SC Multi Vendor SSD	P49039-B21
HPE 15.36TB SAS 12G Read Intensive SFF SC Multi Vendor SSD	P49044-B21
Mixed Use - 12G SAS - SFF - Solid State Drives	
HPE 800GB SAS 12G Mixed Use SFF SC Multi Vendor SSD	P49046-B21
HPE 960GB SAS 12G Mixed Use SFF SC Value SAS Multi Vendor SSD	P37005-B21
HPE 1.6TB SAS 12G Mixed Use SFF SC Multi Vendor SSD	P49048-B21
HPE 1.92TB SAS 12G Mixed Use SFF SC Value SAS Multi Vendor SSD	P37011-B21
HPE 3.2TB SAS 12G Mixed Use SFF SC Multi Vendor SSD	P49052-B21
HPE 3.84TB SAS 12G Mixed Use SFF SC Value SAS Multi Vendor SSD	P37017-B21
HPE 6.4TB SAS 12G Mixed Use SFF SC Multi Vendor SSD	P49056-B21
Mixed Use SAS– LFF- Solid State Drives	
HPE 960GB SAS 12G Mixed Use LFF LPC Value SAS Multi Vendor SSD	P37009-B21
Mixed Use - 6G SATA - SFF - Solid State Drives	
HPE 480GB SATA 6G Mixed Use SFF SC Multi Vendor SSD	P18432-B21
HPE 960GB SATA 6G Mixed Use SFF SC Multi Vendor SSD	P18434-B21
HPE 1.92TB SATA 6G Mixed Use SFF SC Multi Vendor SSD	P18436-B21
HPE 3.84TB SATA 6G Mixed Use SFF SC Multi Vendor SSD	P18438-B21
HPE 480GB SATA 6G Mixed Use SFF SC PM897 SSD	P47814-B21
HPE 960GB SATA 6G Mixed Use SFF SC PM897 SSD	P47815-B21
HPE 1.92TB SATA 6G Mixed Use SFF SC PM897 SSD	P47816-B21
Mixed Use – 6G SATA- LFF – Solid State Drives	
Read Intensive - 6G SATA - SFF - Solid State Drives	
HPE 240GB SATA 6G Read Intensive SFF SC Multi Vendor SSD	P18420-B21
HPE 480GB SATA 6G Read Intensive SFF SC Multi Vendor SSD	P18422-B21
HPE 960GB SATA 6G Read Intensive SFF SC Multi Vendor SSD	P18424-B21
HPE 1.92TB SATA 6G Read Intensive SFF SC Multi Vendor SSD	P18426-B21
HPE 3.84TB SATA 6G Read Intensive SFF SC Multi Vendor SSD	P18428-B21
HPE 7.68TB SATA 6G Read Intensive SFF SC Multi Vendor SSD	P18430-B21
HPE 480GB SATA 6G Read Intensive SFF SC PM893 SSD	P47810-B21
HPE 960GB SATA 6G Read Intensive SFF SC PM893 SSD	P47811-B21
HPE 1.9TB SATA 6G Read Intensive SFF SC PM893 SSD	P47812-B21
HPE 3.84TB SATA 6G Read Intensive SFF SC PM893 SSD	P47813-B21
Read Intensive – 6G SATA - LFF – Solid State Drives	
HPE 960GB SATA 6G Read Intensive LFF LPC Multi Vendor SSD	P47808-B21
Write Intensive – NVMe – SFF – Solid State Drives	
HPE 750GB NVMe Gen3 High Performance Low Latency Write Intensive SFF SCN U.2 P4800X SSD	P06952-B21
Read Intensive - NVMe - SFF - Solid State Drives	
HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF SC U.3 PM1733 SSD	P26104-B21

Core Options

SED (Self-Encryption Drive) SSDs

HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF SC Self-encrypting FIPS U.3 CM6 SSD	P44584-B21
HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF SC Self-encrypting FIPS U.3 CM6 SSD	P44592-B21
HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF SC Self-encrypting FIPS U.3 CM6 SSD	P44568-B21
HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF SC Self-encrypting FIPS U.3 CM6 SSD	P44576-B21

Notes:

- Requirements for Direct Attach SED support
  - TPM2.0 is required for Local Key Management. Keys will be locally encrypted and stored by TPM
  - iLO Advanced is required for Remote Key Management. Key is stored in remote key manager (Ex. ESKM)

Internal Dual M.2 Kit

HPE Universal SATA 6G AIC HHHL M.2 SSD Enablement Kit	878783-B21

Notes:

- SATA M.2 cannot be supported in LFF/SFF chassis with mid tray configuration due to thermal concern
- In 24SFF/12LFF/8LFF chassis, slot 1 /4 /5 can support it under ambient temperature of 30C
- This kit requires a PCIe slot and supports up to two M.2 SSDs which should be the same SSD SKUs

Read Intensive - M.2 - Solid State Drives

HPE 480GB SATA 6G Read Intensive M.2 Multi Vendor SSD	P47818-B21

Hard Drive Blank Kits

HPE Gen9 LFF HDD Spade Blank Kit	807878-B21
HPE Small Form Factor Hard Drive Blank Kit	666987-B21

HPE Tape Backup

For the complete range of tape drives, autoloaders, libraries and media see:
https://www.hpe.com/us/en/storage/storeever-tape-storage.html.

For hardware and software compatibility of Hewlett Packard Enterprise tape backup products
http://www.hpe.com/storage/BURAcompatibility

Hard Drive Kits

HPE DL38X Gen10 Plus 4LFF SAS/SATA Low Profile Mid Tray Drive Cage Kit	P14503-B21

Notes:

- Supported with both the 8 and 12 LFF model.
- With this mid-tray only single-wide (8.5-inch cards with connections or less) cards are supported. Full Length PCIe cards cannot be supported.
- This drive does support hot-swap drives.
- This requires Max Performance Fan kit (P14608-B21).
- Requires DIMM Blank kit (P07818-B21), if this option is selected with processor 200W and above.

HPE ProLiant DL38X Gen10 Plus 2LFF Primary Riser Cage Kit	P14579-B21

Notes:

- Supported only on 8 LFF & 12 LFF Models.
- This option occupies primary riser slot.

Core Options

HPE DL385 Gen10 Plus 2SFF NVMe/SAS Smart Carrier Primary Riser Kit P14505-B21

Notes:

- 2SFF NVMe/SAS SC Kit (P14506-B21) and 2 SFF NVMe/SAS Riser Kit (P14505-B21) CANNOT be selected together
- 35 degree C is the max ambient can be supported and no A3 or A4 support when putting the Shiner Expander in Slot3 and Slot6 under the 2SFF drive cage
- "To have the optimal drive performance, it is recommended to put NVMe drives towards the middle or front of the server. If customer want to put NVMe drives in rear, it is recommended to have maximum NVMe drives not to exceed one per 2SFF drive cage kit."
- Supports 2 SFF rear in Riser1 or 2 location – max 2 supported SFF model.
- Supports 2 SFF rear in Riser1 or 2 location in LFF model.
- When a SAS/SATA controller is supporting this drive cage kit, HPE DL38X G10+ 2SFF SAS/SATA SC Cbl Kit (P42047-B21) must be selected.

HPE DL385 Gen10 Plus 2SFF NVMe/SAS Smart Carrier Front/Rear Drive Cage Kit P14506-B21

Notes:

- Supports upto 2 SFF drives in 8 SFF, 12 LFF & 24 SFF Models.
- Max Qty=2 ,allowed on 8 SFF model.
- Only 1 drive cage can be ordered with 12 LFF and 24 SFF models.
- 8SFF Model with 2 drive cages, requires Universal Media Bay.
- When a SAS/SATA controller is supporting this drive cage kit in rear, HPE DL38X G10+ 2SFF SAS/SATA SC Cbl Kit (P42047-B21) must be selected.
- When this drive cage is installed in front with the Universal Media Bay, SAS/SATA controller cannot be supported.

HPE DL385 Gen10 Plus 2SFF SAS/SATA Smart Carrier LFF Chassis Drive Cage Kit P14507-B21

Notes: Supported only on 8 LFF Model.

HPE DL385 Gen10 Plus 8SFF NVMe/SAS Smart Carrier Box 1-3 Drive Cage Kit P14578-B21

Notes:

- Supported only on 8 SFF Model.
- Maximum upto 2 drive cages can be selected.
- If Drive Cage Qty=1 is selected with one processor only, it requires the 8NVMe Direct Support Bundle (P22750-B21) to be selected.
- If Drive Cage Qty=1 is selected with two processors, it requires the 8NVMe Direct Support Bundle (P19358-B21) to be selected.
- If Qty=2 is selected, it requires 16 NVMe Balanced Support Bundle (P22751-B21) to be selected

HPE DL385 Gen10 Plus 2SFF U.3 Premium Secondary Riser Kit P25902-B21

Notes: When a SAS/SATA controller is supporting this drive cage kit, HPE DL38X G10+ 2SFF SAS/SATA SC Cbl Kit (P42047-B21) must be selected.

HPE DL38X Gen10 Plus 2LFF Low Profile Secondary Riser Kit P25903-B21

HPE DL385 Gen10 Plus Retimer Card Primary Cable Kit P25602-B21

HPE DL385 Gen10 Plus Retimer Card Secondary Cable Kit P25604-B21

Media Bay Kits

HPE DL38X Gen10 Plus Universal Media Bay Kit P14609-B21

Notes:

- The HPE DL385 Gen10 Plus Universal Media bay provides front Display Port and 2xUSB 2.0; plus support for 2x SFF front drives or 2 NVMe front drives and ODD support (Not included); and can only be located in Box1 in either an 8 SFF or 8+8 SFF model.
- This is a 8SFF model option only.
- This option cannot be ordered when Qty=2 of following options is selected : HPE DL380 Gen10 Box1/2 Cage Bkpln Kit (826691-B21) and HPE DL Gen10 Plus 8SFF x4NVMe/SAS SC Kit (P14578-B21).

HPE DL38X NVMe 8 Solid State Drive Express Bay Enablement Kit 826689-B21

Core Options

HPE DL385 Gen10 Plus 8SFF NVMe/SAS Smart Carrier Mid Tray Drive Cage Kit	P14601-B21

Notes: NVMe greater than 18W cannot be supported in the mid tray

HPE Storage Options

Emulex Fibre Channel HBAs

HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter	Q0L13A
HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter	Q0L14A
HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter	Q0L11A
HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter	Q0L12A
HPE SN1610E 32Gb 1-port Fibre Channel Host Bus Adapter	R2J62A
HPE SN1610E 32Gb 2-port Fibre Channel Host Bus Adapter	R2J63A
HPE SN1700E 64Gb 1-port Fibre Channel Host Bus Adapter	R7N77A
HPE SN1700E 64Gb 2-port Fibre Channel Host Bus Adapter	R7N78A

QLogic Fibre Channel HBAs

HPE SN1100Q 16Gb Single Port Fibre Channel Host Bus Adapter	P9D93A
HPE SN1100Q 16Gb Dual Port Fibre Channel Host Bus Adapter	P9D94A
HPE SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter	P9M75A
HPE SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter	P9M76A
HPE SN1610Q 32Gb 1-port Fibre Channel Host Bus Adapter	R2E08A
HPE SN1610Q 32Gb 1-port Fibre Channel Host Bus Adapter	R2E08A
HPE SN1610Q 32Gb 2-port Fibre Channel Host Bus Adapter	R2E09A

NVMe Adaptors

HPE DL385 Gen10 Plus 12Gb NVMe 1-port Adapter	P25526-B21
HPE DL385 Gen10 Plus 12Gb NVMe 2-port Adapter	P25527-B21

HPE Smart IO

Requirements:

- One 3yr/4yr/5yr Silver or 3yr/4yr/5yr Platinum license must be purchased for every DSC-25 card in a server.
- 1yr Silver, 1yr Platinum, and 1yr Policy and Services Manager (PSM) licenses are reserved for renewals only.
- One Policy and Services Manager (PSM) license is required to manage up to 3,000 DSC-25 cards.

Pensando Distributed Services Card (DSC)

Pensando Distributed Services Platform DSC-25 Enterprise 10/25Gb 2-port SFP28 Card	P26966-B21

Notes: Each card instance requires one RTU license of Silver or Platinum software. In case of more than one adapter, RTU licenses doesn't need to be of the same part number.

Pensando DSP Silver Software Licenses

Pensando Distributed Services Platform Enterprise 1-year Renewal Subscription 24x7 Support E-RTU	R6A06AAE
Pensando Distributed Services Platform Enterprise 3-year Subscription 24x7 Support E-RTU	R6A07AAE
Pensando Distributed Services Platform Enterprise 4-year Subscription 24x7 Support E-RTU	R6F68AAE
Pensando Distributed Services Platform Enterprise 5-year Subscription 24x7 Support E-RTU	R6A08AAE

Pensando DSP Platinum Software Licenses

Pensando Distributed Services Platform Enterprise Pro 1-year Renewal Subscription 24x7 Support E-RTU	R6A09AAE
Pensando Distributed Services Platform Enterprise Pro 3-year Subscription 24x7 Support E-RTU	R6A10AAE
Pensando Distributed Services Platform Enterprise Pro 4-year Subscription 24x7 Support E-RTU	R6F69AAE
Pensando Distributed Services Platform Enterprise Pro 5-year Subscription 24x7 Support E-RTU	R6A11AAE

HPE Networking

1 Gigabit Ethernet adapters

Intel I350-T4 Ethernet 1Gb 4-port BASE-T Adapter for HPE	P21106-B21

Core Options

10 Gigabit Ethernet adapters

Broadcom BCM57416 Ethernet 10Gb 2-port BASE-T Adapter for HPE	P26253-B21
Broadcom BCM57412 Ethernet 10Gb 2-port SFP+ Adapter for HPE	P26259-B21
Intel X710-DA2 Ethernet 10Gb 2-port SFP+ Adapter for HPE	P28787-B21

10/25 Gigabit Ethernet adapters

Mellanox MCX512F-ACHT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	P13188-B21
Mellanox MCX631102AS-ADAT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	P42044-B21
Xilinx X2522-25G-PLUS Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	P21109-B21
Broadcom BCM57414 Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	P26262-B21
Intel E810-XXVDA2 Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	P08443-B21
Intel E810-XXVDA4 Ethernet 10/25Gb 4-port SFP28 Adapter for HPE	P08458-B21

100/200 Gigabit Ethernet adapters

HPE NV60100M 100Gb 2-port Storage Offload Adapter	R8M41A
Intel E810-CQDA2 Ethernet 100Gb 2-port QSFP28 Adapter for HPE	P21112-B21
HPE Ethernet 100Gb 1-port QSFP28 PCIe3 x16 MCX515A-CCAT Adapter	P31246-B21
Mellanox MCX623105AS-VDAT Ethernet 200Gb 1-port QSFP56 Adapter for HPE	P10180-B21
Mellanox MCX623106AS-CDAT Ethernet 100Gb 2-port QSFP56 Adapter for HPE	P25960-B21

Notes:

- 4-port adapters go only into Slot 1.
- A minimum of two Gigabytes (2 GB) of server memory is required per each adapter.
- Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for fiber-optic environments must be purchased separately. Please see the related NIC QuickSpecs for Technical Specifications and additional information: **https://h20195.www2.hpe.com/v2/getpdf.aspx/A00002507ENW.pdf?**

Recommended System Ambient Temperature		
System Config	**P31246-B21**	**P25960-B21**
8LFF	25C	25C
24SFF	25C	25C
16SFF	30C	30C
8SFF	30C	30C

Other Restrictions

1. These cards are not supported with 12LFF CTO config.
2. These cards are not supported with mid-tray drive cages for both LFF/SFF chassis.
3. Required to use Max Performance Fan Kit
4. Only supported on 1/4/5 PCIe slots

OCP Adapters

Intel I350-T4 Ethernet 1Gb 4-port BASE-T OCP3 Adapter for HPE	P08449-B21
Marvell QL41132HQCU Ethernet 10Gb 2-port SFP+ OCP3 Adapter for HPE	P08452-B21
Broadcom BCM57416 Ethernet 10Gb 2-port BASE-T OCP3 Adapter for HPE	P10097-B21
Broadcom BCM57412 Ethernet 10Gb 2-port SFP+ OCP3 Adapter for HPE	P26256-B21
Intel X710-DA2 Ethernet 10Gb 2-port SFP+ OCP3 Adapter for HPE	P28778-B21
Broadcom BCM57414 Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	P10115-B21
Mellanox MCX631432AS-ADAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	P42041-B21
Mellanox MCX562A-ACAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	P10112-B21

Notes: Current Mellanox OCP NIC MCX562A does not support multi-host configuration as two x8, so please make sure to use cable P14318-001 to connect to CPU1 to upgrade and configure to one x16 OCP NIC.

Intel E810-XXVDA2 Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	P10106-B21
Intel E810-CQDA2 Ethernet 100Gb 2-port QSFP28 OCP3 Adapter for HPE	P22767-B21

Core Options

Notes: For 100Gb/200Gb stand-up and OCP cards, high performance fan kits need to be supported. Ambient
temperature needs to be restricted under 25C.

HPE DL385 Gen10 Plus OCP Upgrade Cable Kit P14603-B21

HPE InfiniBand

HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe4 x16 OCP3 MCX653435A-HDAI Adapter P31323-B21

HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 x16 OCP3 MCX653436A-HDAI Adapter P31348-B21

Recommended System Ambient Temperature			
System Config	**DIMM Capacity**	**P31323-B21**	**P31348-B21**
8LFF (SAS/SATA)	64GB	20C	20C
16SFF (SAS/SATA)	64GB	25C	25C
8SFF (SAS/SATA)	64GB	25C	25C
8SFF (NVMe)	64GB	20C	20C
16SFF (SAS/SATA)	128GB	20C	20C
8SFF (SAS/SATA)	128GB	20C	20C

Other Restrictions

1. These cards are not supported with 12LFF/24SFF CTO config.
2. These cards are not supported with mid-tray drive cages for both LFF/SFF chassis.
3. Required to use Max Performance Fan Kit
4. Not supported with DIMMs with more than 128GB
5. Not supported with CPUs more than 240W

HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 x16 MCX653106A-HDAT Adapter P31324-B21

Recommended System Ambient Temperature	
System Config	**P31324-B21**
8LFF	25C
24SFF	25C
16SFF	30C
8SFF	30C

Other Restrictions

1. These cards are not supported with 12LFF CTO config.
2. These cards are not supported with mid-tray drive cages for both LFF/SFF chassis.
3. Required to use Max Performance Fan Kit
4. Only supported on 1/4/5 PCIe slots

HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe4 x16 MCX653105A-HDAT Adapter P23664-B21

HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe4 x16 MCX653105A-ECAT Adapter P23665-B21

HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe4 x16 MCX653106A-ECAT Adapter P23666-B21

HPE I/O Expansion Options

Notes: For a Secondary/Tertiary riser the second processor is required

HPE DL38X Gen10 Plus Primary NEBS-compliant Riser Kit P14575-B21

Notes: Requires selection of HPE DL38X Gen10 Plus Tertiary NEBS-compliant Riser Kit (P14577-B21)

HPE DL38X Gen10 Plus Tertiary NEBS-compliant Riser Kit P14577-B21

Notes: Requires selection of a 2nd processor

HPE DL38X Gen10 Plus x8/x16/x8 Secondary Riser Kit P14587-B21

Notes: Requires selection of a 2nd processor

HPE DL38X Gen10 Plus x16 Tertiary Riser Kit P14588-B21

Notes: Requires selection of a 2nd processor

HPE DL38X Gen10 Plus x16/x16 Slot 1/2 Secondary Riser Kit P14589-B21

Notes: Requires selection of a 2nd processor

HPE DL38X Gen10 Plus x16/x16 Slot 2/3 Secondary Riser Kit P14590-B21

Notes: Requires selection of a 2nd processor

Core Options

HPE DL38X Gen10 Plus Slot1 x16 Adder for Slot2/3 Riser Kit P14600-B21
Notes: Required to add additional x16 PCIe Gen4 lanes for Primary/Secondary Riser3
HPE DL385 Gen10 Plus Primary/Secondary Riser Cage without Retainer Clip P38771-B21
HPE DL385 Gen10 Plus Tertiary Riser Cage without Retainer Clip P38774-B21

HPE PCIe Workload Accelerator Options

HPE Computation and Graphics Accelerator

Part number	Card	QTY per Server	CPU Supported	Max Ambient Temperature			
				8/16 SFF	24 SFF (Or 8 SSF/16 SFF if >1 SFF is NVMe storage	8LFF w/ Power Switch	12LFF
R0W29C	HPE NVIDIA Tesla T4 16GB Computational Accelerator	8	240W or below	35C (>30C may throttle)	35C (>30C may throttle)	35C (>30C may throttle)	25C
R4D73C	NVIDIA Tesla V100S 32GB Computational Accelerator	3	240W or below	35C (>30C may throttle)	20C or Not Supported	25C (35C max w/ increased cooling)	No Support
R1F95C	HPE NVIDIA Quadro RTX 4000 Graphics Accelerator	6	240W or below	40C, 3Kft (35C max w/ NVME drive)	35C (>30C may throttle)	40C, 3Kft	35C (>30C may throttle)
R0Z45C	HPE NVIDIA Quadro RTX 6000 Graphics Accelerator	3	240W or below	40C, 3Kft (35C max w/ NVME drive)	35C (>30C may throttle)	40C, 3Kft	35C (>30C may throttle)
R1F97C	HPE NVIDIA Quadro RTX 8000 Graphics Accelerator	3	240W or below	40C, 3Kft (35C max w/ NVME drive)	35C (>30C may throttle)	40C, 3Kft	35C (>30C may throttle)
R6B53C	NVIDIA A100 40GB GPU Module for HPE	3	240W or below	35C (>30C may throttle) (SAS/SATA only, no SAS4)	Not Supported	25C	Not Supported

Part number	Card	QTY per Server	CPU Supported	8/16 SFF	24 SFF (Or 8 SSF/16 SFF if >1 SFF is NVMe storage	8LFF w/ Power Switch	12LFF
R4B02C	Xilinx Alveo U50 Accelerator for HPE	8	240W or below	8SFF 35C (>30C may throttle), 16SFF 25C	Not Supported	Not Supported	Not Supported
R4B03C	Xilinx Alveo U250 Accelerator for HPE	3	240W or below	35C (>30C may throttle)	25C, SAS/SATA only	25C	Not Supported

NVIDIA T4 16GB Computational Accelerator for HPE R0W29C
Notes: DL385 Gen10 Plus can support up to 8 of this accelerator
Xilinx Alveo U50 Accelerator for HPE R4B02C
Xilinx Alveo U250 Accelerator for HPE R4B03C

Core Options

HPE Graphic Cable Kits

HPE GPU 2x 8-pin Cable Kit P03849-B21

Notes: This Cable Kit is for use with the RTX 4000 Graphics Accelerator

HPE DL38x Gen10 8-pin Keyed Cable Kit 871829-B21

Notes: This Cable Kit is for use with the V100S PCIe 32GB Module

HPE DL38X Gen10 8x 6-pin Cable Kit 871830-B21

Notes: This Cable Kit is for use with the RTX 6000 and RTX 8000 Graphics Accelerator

HPE DL38X Gen10 8-pin Cable Kit 871828-B21

Notes: This cable kit is for use with the U250 Graphics Accelerator

HPE Cooling Options

HPE DL38X Gen10 Plus Maximum Performance Fan Kit P14608-B21

Notes:

- This kit is required for specific **Ambient temperature environments,.**
- Max Performance fan kit consists of 6 fans, these will need to replace all the standard fans in the unit, and fill all 6 fan cages.
- The 12 LFF and 24 SFF models (including field upgrades to 24 SFF) will already include 6 Max Performance fan kits.
- The High Performance fan kit is needed to support certain Passive GPGPU (Graphics cards) configurations; or ASHRAE operating environments.
- For elevated ambient temperature support please see: **http://www.hpe.com/servers/ashrae**.

HPE Power Supplies

HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit 865408-B21

Notes: Flex Slot Platinum power supplies support power efficiency of up to 94% and include a standard C-14 power inlet connector.

HPE 800W Flex Slot Titanium Hot Plug Low Halogen Power Supply Kit 865438-B21

Notes: Flex Slot Titanium power supplies support power efficiency of up to 96% and include a standard C-14 power inlet connector.

HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit 865414-B21

Notes: Flex Slot Platinum power supplies support power efficiency of up to 94% and include a standard C-14 power inlet connector.

HPE 800W Flex Slot -48VDC Hot Plug Low Halogen Power Supply Kit 865434-B21

Notes: Flex Slot -48VDC power supplies support power efficiency of up to 94%.

HPE 800W Flex Slot Universal Hot Plug Low Halogen Power Supply Kit 865428-B21

HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit 830272-B21

Notes:

- Flex Slot universal power supplies support power efficiency of up to 94% and support both 277VAC/380VDC power inputs.
- Flex Slot Platinum Plus power supplies support power efficiency of up to 94% and include a C-14 power inlet connector that can support HPE Power Discovery Services (blue connector).
- Prior to making a power supply selection it is highly recommended that the HPE Power Advisor is run to determine the right size power supply for your server configuration. The HPE Power Advisor is located at: **http://www.hpe.com/info/hppoweradvisor**.
- All power supplies in a server should match. Mixing Power Supplies is not supported.
- Option kits contain the specified power supply and a PDU IEC cable.
- 1600W power supplies only support high line voltage.

Core Options

– HPE ProLiant servers ship with an IEC-IEC power cord used for rack mounting with Power Distribution Units (PDUs). Visit **HPE power cords** for a full list of optional HPE power cords.

Riser Information

Part number	Description	Riser position			Bus width (Gen4 lanes)			NVMe Direct Connect	
		Primary	Secondary	Tertiary	Top slot	Middle Slot	Bottom slot	Ports	Drive count
N/A	This is the default riser in the chassis	D	N	N	x8	x16	x8	0	0
P14587-B21	HPE DL38X Gen10 Plus x8/x16/x8 Secondary Riser Kit	N	O	N	x8	x16	x8	0	0
P14592-B21	HPE DL38X Gen10 Plus x16x16 Slot1/2 Riser FIO Kit	O	N	N	X16	x16	0	0	0
P14589-B21	HPE DL38X Gen10 Plus x16/x16 Slot1/2 Secondary Riser Kit	N	O	N	X16	x16	0	0	0
P14599-B21	HPE DL38X Gen10 Plus x16 x16 Slot2/3 Riser FIO Kit	O	N	N	0	x16	X16	0	0
P14590-B21	HPE DL38X Gen10 Plus x16/x16 Slot2/3 Secondary Riser Kit	N	O	N	0	x16	X16	0	0
P14600-B21	HPE DL38X Gen10 Plus Slot1 x16 Adder for Slot2/3 Riser	O	O	N	x16	0	0	0	0
P14581-B21	HPE DL38X Gen10 Plus x8x8 2x16 TER Rsr Kit	N	N	O	x8	x8	0	0	0
P14588-B21	HPE DL38X Gen10 Plus x16 Tertiary Riser Kit	N	N	O	x16	0	0	0	0

Core Options

Part number	Description	Primary	Secondary	Tertiary	Top slot	Middle Slot	Bottom slot	Ports	Drive count
P14575-B21	HPE DL38X Gen10 Plus Primary NEBS-compliant Riser Kit	O	O	N	0	0	0	0	0
P14577-B21	HPE DL38X Gen10 Plus Tertiary NEBS-compliant Riser Kit	N	N	O	0	0	0	0	0
P14505-B21	HPE DL385 Gen10 Plus 2SFF NVMe/SAS Smart Carrier Riser Kit	O	O	N	0	0	0	0	0
P25902-B21	HPE DL385 Gen10 Plus 2SFF NVMe/SAS Smart Carrier Secondary Riser Kit	N	O	N	0	0	0	1	2
P14579-B21	HPE DL38X Gen10 Plus 2LFF Primary Riser Kit	O	O	N	0	0	0	0	0
P25903-B21	HPE DL38X Gen10 Plus 2LFF Secondary Riser Kit	N	O	N	0	0	0	0	0
P14580-B21	HPE DL38X Gen10 Plus 2LFF FIO Riser Kit	N	N	O	0	0	0	0	0

Notes: Y = supported; D = default on Chassis; O = optional; N = not supported or slot/connector not present.

Additional Options

Some options may not be integrated at the factory. To ensure only valid configurations are ordered, Hewlett Packard Enterprise recommends the use of an HPE approved configurator. Contact your local sales representative for additional information.

Embedded Management

HPE iLO Advanced

HPE iLO Advanced Electronic License with 1yr Support on iLO Licensed Features	E6U59ABE
HPE iLO Advanced 1-server License with 1yr Support on iLO Licensed Features	512485-B21
HPE iLO Advanced Flexible Quantity License with 1yr Support on iLO Licensed Features	512486-B21
HPE iLO Advanced AKA Tracking License with 1yr Support on iLO Licensed Features	512487-B21
HPE iLO Advanced Electronic License with 3yr Support on iLO Licensed Features	E6U64ABE
HPE iLO Advanced 1-server License with 3yr Support on iLO Licensed Features	BD505A
HPE iLO Advanced Flexible Quantity License with 3yr Support on iLO Licensed Features	BD506A
HPE iLO Advanced AKA Tracking License with 3yr Support on iLO Licensed Features	BD507A
HPE iLO Common Password FIO Setting	P08040-B21

Software as a Service Management

HPE GreenLake for Compute Ops Management

HPE GreenLake for Compute Ops Management Enhanced 3-year Upfront ProLiant SaaS	R7A11AAE

Additional Options

HPE GreenLake for Compute Ops Management Enhanced 1-year Upfront ProLiant SaaS	R7A10AAE
HPE GreenLake for Compute Ops Management Enhanced 5-year Upfront ProLiant SaaS	R7A12AAE

Notes: For customers purchasing HPE GreenLake for Compute Ops Management, without a hardware purchase or a BTO purchase, use this base SKU within ASQ order:

HPE GreenLake for Compute Ops Management Base SaaS	R6Z73AAE

HPE Converged Infrastructure Management Software

HPE OneView Standard 1yr 9x5 Support Flexible Quantity E-RTU	K6F98AAE
HPE OneView including 3yr 24x7 Support Physical 1-server LTU	E5Y34A
HPE OneView including 3yr 24x7 Support Track 1-server LTU	E5Y36A
HPE OneView including 3yr 24x7 Support Flexible Quantity E-LTU	E5Y35AAE
HPE OneView Upgrade from Insight Management 3yr 24x7 Support 1-server LTU	F6Q91A
HPE OneView w/o iLO including 3yr 24x7 Support 1-server LTU	P8B24A
HPE OneView w/o iLO including 3yr 24x7 Support Track 1-server LTU	P8B25A
HPE OneView w/o iLO including 3yr 24x7 Support 1-server FIO LTU	P8B31A
HPE OneView for ProLiant DL Server including 3yr 24x7 Support FIO Bundle Physical 1-server LTU	E5Y43A
HPE OneView for ProLiant DL Server including 3yr 24x7 Support Bundle Track 1-server LTU	E5Y44A
HPE OneView Upgrade from Insight Management including 3yr 24x7 Support Flexible Quantity E-LTU	E5Y45AAE
HPE OneView w/o iLO including 3yr 24x7 Support Flexible Quantity E-LTU	P8B26AAE

Notes: Licenses ship without media. The HPE OneView Media Kit can be ordered separately, or can be **downloaded**.

Additional Options

HPE Security

HPE Gen10 2U Bezel Kit	867809-B21
HPE Bezel Lock Kit	875519-B21
HPE Gen10 Plus Chassis Intrusion Detection Kit	P14604-B21
HPE Gen10 TPM 1.2 FIO Setting	872108-B21
HPE Trusted Platform Module 2.0 Gen10 Plus Black Rivets Kit	P13771-B21

Notes:

- This is TPM 2.0 for Gen10 plus
- This provides a physical connection from the chassis board and hood and detects any physical intrusion into the chassis, providing security during the entire supply chain process of shipping, receiving, distribution, and operation

HPE Server Platform LDevID FIO Setting	P49803-B21

Notes:

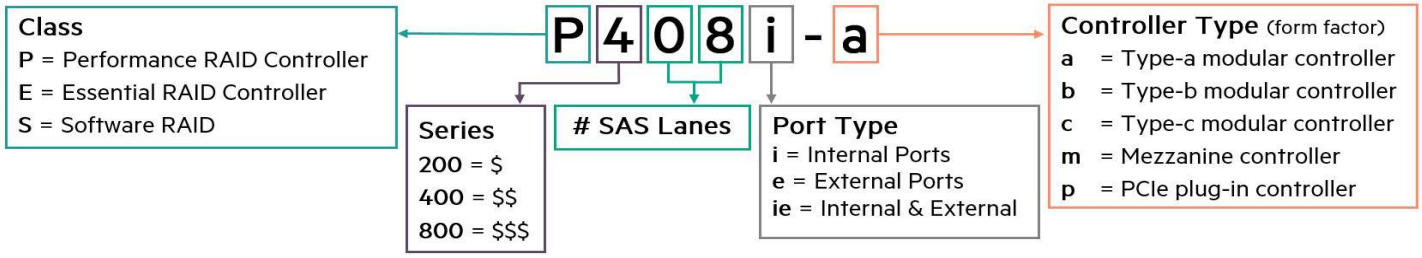
- Directs HPE manufacturing site to create, digitally sign and store a platform certificate on the server.
- Requires HPE Trusted Platform Module (TPM).
- Locally Significant Device Identifier (LDevID) certificates are part of a Zero Trust Architecture. This SKU instructs factory to provision LDevID on HPE iLO.

HPE Server Identity LDevID FIO Setting	P49814-B21

Notes:

- Locally Significant Device Identifier (LDevID) certificates are part of a Zero Trust Architecture. This SKU instructs factory to provision LDevID on HPE iLO.

HPE Smart Array Controllers



HPE 96W Smart Storage Battery (up to 20 Devices) with 145mm Cable Kit

Notes: All performance RAID controllers are supported by the HPE Smart Storage Battery (P01366-B21), which supports multiple devices and is sold separately.

HPE Smart Array P816i-a SR Gen10 (16 Internal Lanes/4GB Cache/SmartCache) 12G SAS Modular Controller	804338-B21

Notes:

- Does not occupy a PCIe expansion slot and includes SmartCache license.
- The P816i-a cable ships in the 12LFF chassis only.

HPE Smart Array P408i-a SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS Modular Controller	804331-B21

Notes: Does not occupy a PCIe expansion slot.

Additional Options

HPE Smart Array P408i-p SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS PCIe Plug-in Controller	830824-B21
HPE Smart Array P408e-p SR Gen10 (8 External Lanes/4GB Cache) 12G SAS PCIe Plug-in Controller	804405-B21

Essential RAID Controllers

HPE Smart Array E208i-p SR Gen10 (8 Internal Lanes/No Cache) 12G SAS PCIe Plug-in Controller	804394-B21
HPE Smart Array E208e-p SR Gen10 (8 External Lanes/No Cache) 12G SAS PCIe Plug-in Controller	804398-B21
HPE Smart Array E208i-a SR Gen10 (8 Internal Lanes/No Cache) 12G SAS Modular Controller	804326-B21

Notes: Does not occupy a PCIe expansion slot.

Boot Device

HPE NS204i-p x2 Lanes NVMe PCIe3 x8 OS Boot Device	P12965-B21

Notes:
- NS204i-p will only be supported in Slot 1 of the primary riser and Slot 8 of the tertiary riser.
- Legacy Mode setting (758959-B21) and NS204i-p cannot be selected together.
- HPE Universal SATA AIC HHHL M.2 SSD Kit (878783-B21) and NS204i-p cannot be selected together.
- When NS204i-p and doublewide GPU are selected together Secondary Riser MUST be selected and doublewide GPU can be maximum of 2

Software RAID

HPE Smart Array SR100i SR Gen10 Plus SW RAID

Notes:
- All models come with the SR100i Smart Array Controller with embedded software RAID support. Only supported with NVMe drives and not supported with SATA drives on DL385 Gen10 Plus.
- HPE Smart Array SR100i SR Gen10 Plus SW RAID will operate in UEFI mode only. For legacy support an additional controller will be needed, and for CTO orders please also select the Legacy mode settings part, 758959-B22.
- HPE Smart Array SR100i SR Gen10 Plus SW RAID is off by default and must be enabled.
- The SR100i supports Microsoft Windows Server only.

HPE Cable Options

HPE DL38X Gen10 Plus Rear Serial Cable Kit	P14606-B21
HPE DL38X Gen10 Plus 8NVMe CPU1/2 Cable Kit	P22829-B21
HPE DL38X Gen10 Plus 8NVMe CPU1 Cable Kit	P22834-B21
HPE DL38X Gen10 Plus 16NVMe CPU1/2 Cable Kit	P22835-B21
HPE Gen10 Plus Chassis Intrusion Detection Kit	P14604-B21
HPE DL38X Gen10 Plus Mini SAS 3 Position Cable	P14605-B21

Notes:
- Maximum 1 of this cable kit can be selected
- If embedded controller is supported for HPE DL385 G10+ 2SFF NVMe/SAS SC Cage Kit (P14506-B21), then this cable kit needs to be selected

HPE DL38X Gen10 Plus 12LFF SAS Expander Card Cable Kit	P23392-B21

Notes:
- Firmware must be refreshed to v5.09 (or above) to support UBM type backplanes (LFF SAS SATA and U.3)
- HPE DL38X Gen10+ 12LFF SAS Exp Cbl Kit (P23392-B21) must be selected when Expander Card is selected for 12LFF or 8LFF CTO servers.

Additional Options

HPE ProLiant DL38X Gen10 Plus 2SFF SAS/SATA SC Cage Cable Kit P42047-B21

Notes:

- Maximum 1 of this cable kit can be selected
- If a Smart Array Controller is neeed to support following drive cages, then one P42047-B21 needs to be selected. One cable kit can support maximum 2 drive cages in rear.
  - HPE DL385 G10+ 2SFF NVMe/SAS SC Risr Kit (P14505-B21)
  - HPE DL385 G10+ 2SFF NVMe/SAS SC Cage Kit (P14506-B21)
  - HPE DL385 Gen10+ 2SFF U.3 Sec Riser Kit (P25902-B21)
- When HPE DL385 G10+ 2SFF NVMe/SAS SC Cage Kit (P14506-B21) is seleced along with the Universal Media Bay and is installed in front, SAS/SATA controller cannot be supported for it, therefore this cable kit is not needed

HPE Disk-Based Backup

HPE RDX External Docking Station C8S07B

HPE Racks

- Please see the HPE Advanced Series Racks QuickSpecs for information on additional racks options and rack specifications. **HPE G2 Advanced Series Racks**
- Please see the HPE Enterprise Series Racks QuickSpecs for information on additional racks options and rack specifications. **HPE G2 Enterprise Series Racks**

HPE Power Distribution Units (PDUs)

- Please see the **HPE Basic Power Distribution Units (PDU) QuickSpecs** for information on these products and their specifications.
- Please see the **HPE Metered Power Distribution Units (PDU) QuickSpecs** for information on these products and their specifications.
- Please see the **HPE Intelligent Power Distribution Unit (PDU) QuickSpecs** for information on these products and their specifications.
- Please see the **HPE Metered and Switched Power Distribution Units (PDU) QuickSpecs** for information on these products and their specifications.

HPE Uninterruptible Power Systems (UPS)

- To learn more, please visit the **HPE Uninterruptible Power Systems (UPS) web page.**
- Please see the **HPE DirectFlow Three Phase Uninterruptible Power System QuickSpecs** for information on these products and their specifications.
- Please see the **HPE Line Interactive Single Phase UPS QuickSpecs** for information on these products and their specifications.

HPE Rack Options

Please see the **HPE KVM Switches web page** for information on these products and their specifications.

Rail Kits

Notes:

- HPE rail kits are designed to work with HPE racks in compliance with industry standard EIA-310-E. In the event a customer elects to purchase a third-party rack for use with an HPE rail kit, any such use is at customer's own risk. HPE makes no express or implied warranties with respect to such third-party racks and specifically disclaims any implied warranties of merchantability and fitness for a particular purpose. Furthermore, HPE has no obligation and assumes no liability for the materials, design, specifications, installation, safety, and compatibility of any such third-party racks with any rail kits, including HPE rail kits.
- Ball bearing and Easy Install rail kits contain telescoping rails which allow for in-rack serviceability.

Additional Options

- To assist in the installation of the server into the rack an optional installation tool is available by contacting your local services representative (695539-001).
- Hewlett Packard Enterprise recommends that a minimum of two people are required for all Rack Server installations. Please refer to your installation instructions for proper tools and number of people to use for any installation.
- CTO Models do not ship with rail kits, they need to be ordered seperately

HPE DL38X Gen10 Plus 2U SFF Easy Install Rail Kit	P22018-B21

Notes: Supported on SFF Model only

HPE DL38X Gen10 Plus 2U LFF Easy Install Rail Kit	P22019-B21

Notes: Supported on LFF Model only

HPE DL38X Gen10 Plus 2U Cable Management Arm for Rail Kit	P22020-B21

HPE USB and SD Options

HPE Enterprise Mainstream Flash Media Kits for Memory Cards

HPE 32GB microSD RAID 1 USB Boot Drive	P21868-B21

Notes:

- In vSphere 7.0, VMware made changes that impact the use of an SD Card/USB media as a standalone boot device and will be removing support for them after version 7.x.
- SD Card/USB media can still be used as a standalone boot option through all 7.x releases via published Customer Advisory **Usage of SD Card/USB Devices As Standalone Boot Devices Has Changed Due to System Storage Changes For VMware ESXi 7.0 (Or Later).**
- For any major release beyond VMware ESXi 7.x, VMware will require M.2 or another local persistent device as the standalone boot option.

HPE Support Services

Installation & Startup Services

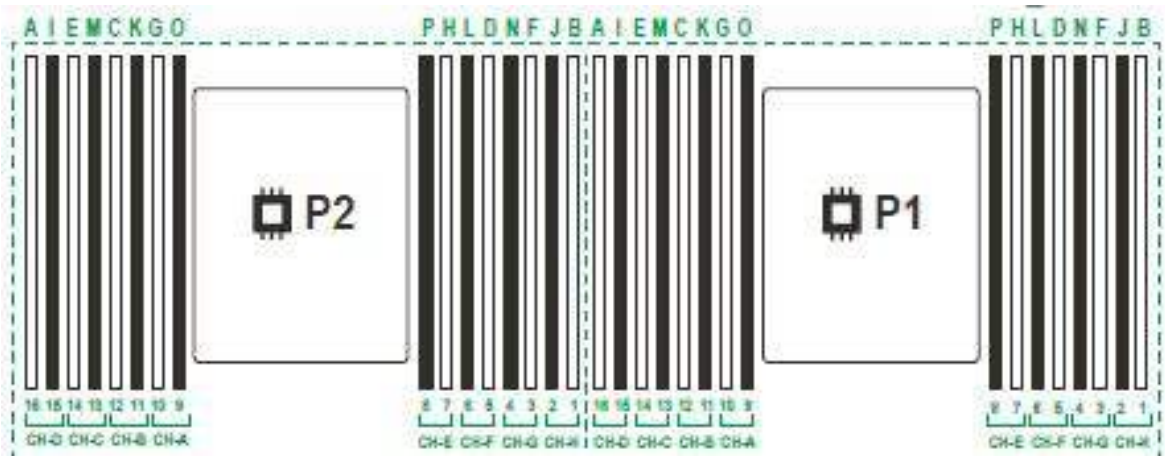
HPE Proliant DL/ML Install Service	U4554E
HPE Proliant DL/ML Startup Service	U4555E

Tech Care

HPE 5 Year Tech Care Essential DL385 Gen10 Plus Service	HV6P9E
HPE 5 Year Tech Care Essential wDMR DL385 Gen10 Plus Service	HV6Q2E
HPE 3 Year Tech Care Essential DL385 Gen10 Plus Service	HV6P7E
HPE 3 Year Tech Care Essential wDMR DL385 Gen10 Plus Service	HV6Q0E

Notes: For a full listing of support services available for this server, please visit **http://www.hpe.com/services**.

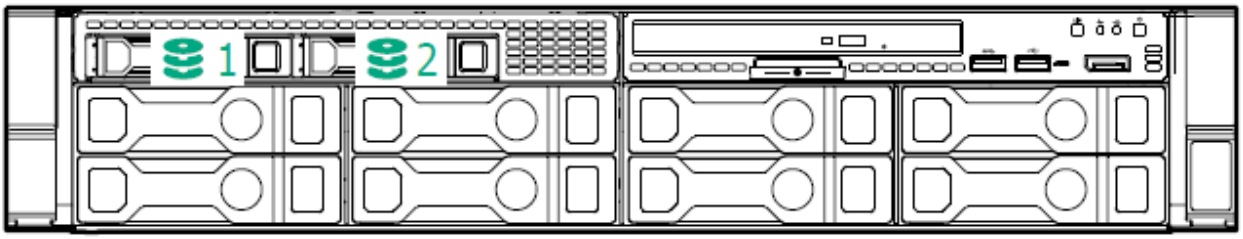
Memory



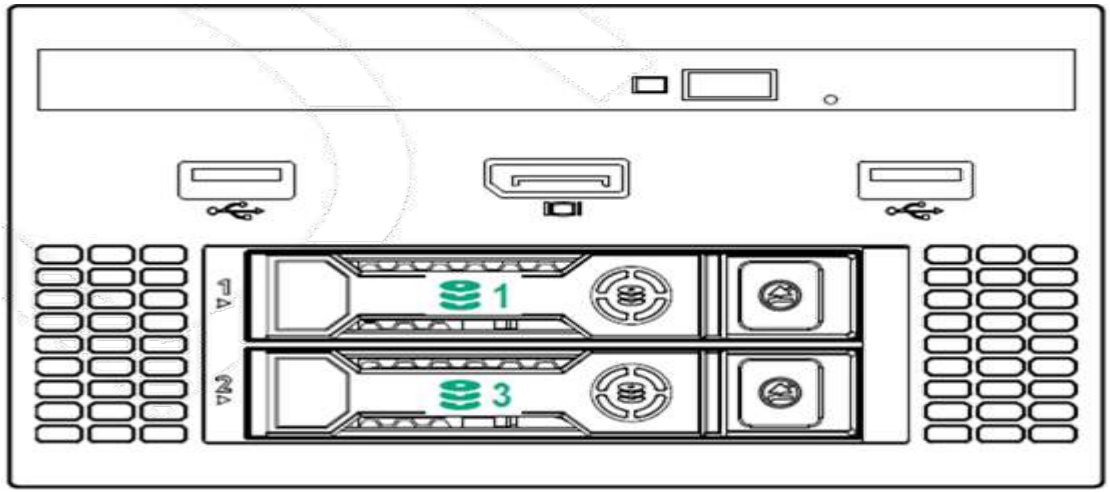
General Memory Population Rules and Guidelines:

- Install DIMMs only if the corresponding processor is installed.
- If only one processor is installed in a two-processor system, only half of the DIMM slots are available.
- To maximize performance, it is recommended to balance the total memory capacity between all installed processors.
- When two processors are installed, balance the DIMMs across the two processors.
- White DIMM slots denote the first slot to be populated in a channel.
- The maximum memory speed is a function of the memory type, memory configuration, and processor model.
- The maximum memory capacity is a function of the number of DIMM slots on the platform, the largest DIMM capacity qualified on the platform, the number and model of installed processors qualified on the platform.
- For details on the HPE Server Memory Options Population Rules, visit: **https://www.hpe.com/docs/amd-population-rules-Gen10plus**
- To realize the performance memory capabilities listed in this document, HPE DDR4 Smart Memory is required. For additional information, please see the: **HPE DDR4 Smart Memory QuickSpecs**
- For details on the HPE Server Memory speed, visit: **http://www.hpe.com/docs/amd-speed-tables**

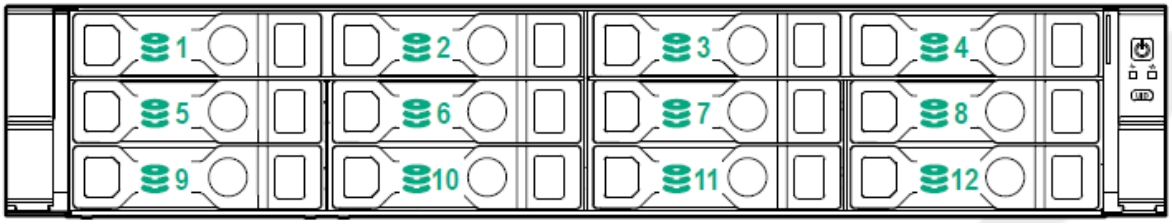
Storage



8LFF chassis with Universal media bay and optional 2SFF and optical drive shown

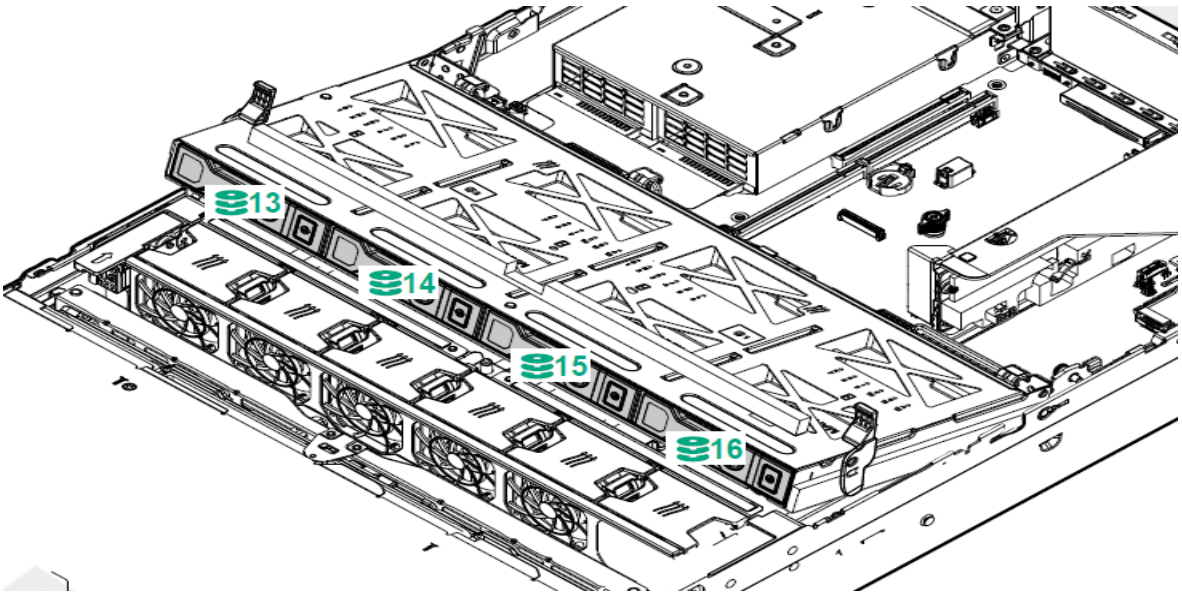


Universal Media Bay

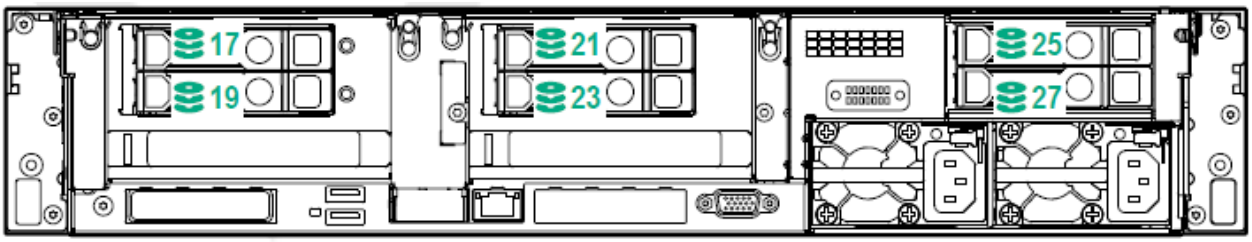


12LFF Front Panel

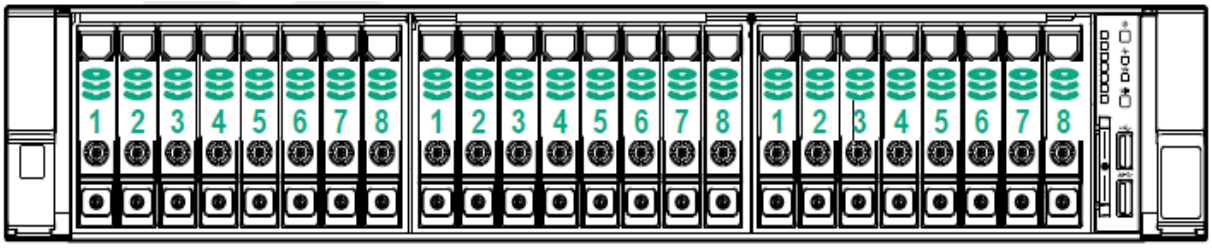
Storage

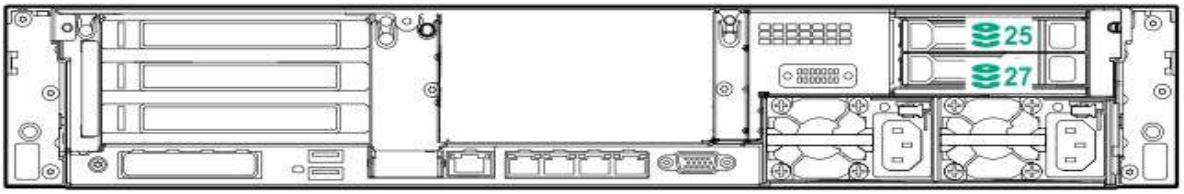


Midplane Box (LFF Only)



Rear Panel 4LFF +2SFF





24 SFF Chassis + rear 2 SFF drives

Technical Specifications

System Unit

Dimensions

- **SFF Drives:**
  8.75 x 44.54 x 71.1 cm 3.44 x 17.54 x 28 in
- **LFF Drives:**
  8.75 x 44.54 x 74.9 cm 3.44 x 17.54 x 29.5 in

Weight (approximate)

- **Minimum:**
  15.1 kg / 33.25 lbs with 1 hard drive
  - **Maximum:** 19.7 kg / 43.50 lbs with 24 hard drives
  - **Minimum:** 8 SFF chassis with 1x SFF HDD and 7 HDD blanks, 2x Drive Bay blanks, 1x processor including standard heatsink, 1x power supply (plus blank), 1x Smart Array, 1x Riser installed, cables for the above)
- **Maximum:**
  24.7 kg / 54.5 lbs with 12 hard drives
  - **Minimum:** 17.3 kg / 38.25 lbs with 1 hard drive
  - **Maximum:** 12 LFF hard drives (no rear drives), 2x processors, 2x power supplies, 1x Smart Array, 2x Risers installed)

Input Requirements (per power supply)

Rated Line Voltage

- 100 to 120 VAC
- 200 to 240 VAC

BTU Rating

Maximum

- For 800W Power Supply: 3207 BTU/hr (at 100 VAC), 3071 BTU/hr (at 200 VAC), 3112 BTU/hr (at 240 VAC) for China Only
- For 500W Power Supply: 1979 BTU/hr (at 100 VAC), 1911 BTU/hr (at 200 VAC), 1965 BTU/hr (at 240 VAC) for China Only

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Power Supply Output (per power supply)

Rated Steady-State Power

- For 1400W Power Supply: 1400W (at 240 VAC), 1400W (at 240 VAC)
- For 800W Power Supply: 800W (at 100 VAC), 800W (at 240 VAC), 800W (at 240 VAC) input for China only
- For 500W Power Supply: 500W (at 100 VAC), 500W (at 240 VAC), 500W (at 240 VAC) input for China only

Maximum Peak Power

- For 1400W Power Supply: 1400W (at 200 to 240 1VAC), 1400W (at 240 VAC) input for China only
- For 800W Power Supply: 800W (at 100 to 127 VAC), 800W (at 200 to 240 1VAC), 800W (at 240 VAC) input for China only
- For 500W Power Supply: 500W (at 100 to 127 VAC), 500W (at 200 to 240 VAC), 500W (at 240 VAC) input for China only

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Technical Specifications

System Inlet Temperature

- **Standard Operating Temperature**
  10° to 35°C (50° to 95°F) at sea level with an altitude derating of 1.0°C per every 305 m (1.8°F per every 1000 ft) above sea level to a maximum of 3050 m (10,000 ft), no direct sustained sunlight. Maximum rate of change is 20°C/hr (36°F/hr). The upper limit and rate of change may be limited by the type and number of options installed.

  System performance during standard operating support may be reduced if operating with a fan fault or above 30°C (86°F).
- **Extended Ambient Operating Temperature**
  For approved hardware configurations, the supported system inlet range is extended to be: 5° to 10°C (41° to 50°F) and 35° to 40°C (95° to 104°F) at sea level with an altitude derating of 1.0°C per every 175 m (1.8°F per every 574 ft) above 900 m (2953 ft) to a maximum of 3050 m (10,000 ft). The approved hardware configurations for this system are listed at the URL:**http://www.hpe.com/servers/ashrae**

  For approved hardware configurations, the supported system inlet range is extended to be: 40° to 45°C (104° to 113°F) at sea level with an altitude derating of 1.0°C per every 125 m (1.8°F per every 410 ft) above 900 m (2953 ft) to a maximum of 3050 m (10,000 ft). The approved hardware configurations for this system are listed at the URL:**http://www.hpe.com/servers/ashrae**

  System performance may be reduced if operating in the extended ambient operating range or with a fan fault.
- **Non-operating**
  -30° to 60°C (-22° to 140°F). Maximum rate of change is 20°C/hr (36°F/hr).

Relative Humidity

- **Operating**
  8% to 90% - Relative humidity (Rh), 28°C maximum wet bulb temperature, non-condensing.
- **Non-operating** (non-condensing)
  5 to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, non-condensing.

Altitude

- **Operating**
  3050 m (10,000 ft). This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 457 m/min (1500 ft/min).
- **Non-operating**
  9144 m (30,000 ft). Maximum allowable altitude change rate is 457 m/min (1500 ft/min).

RTC Accuracy

50 ppm

Emissions Classification (EMC) – Regulatory Information

To view the regulatory information for your product, view the Safety and Compliance Information for Server, Storage, Power, Networking, and Rack Products, available at the Hewlett Packard Enterprise Support Center:
http://www.hpe.com/support/Safety-Compliance-EnterpriseProducts

HPE Smart Array

For latest information on **HPE Smart Array Gen10 Controllers for HPE ProLiant DL, ML and Apollo Servers** please refer to their QuickSpecs. (E208i-a,E208i-p,E208e-p,P408i-a,P408i-p,P408e-p,P816i-a)

Technical Specifications

Acoustic Noise

Listed are the declared A-Weighted sound power levels (LWAd) and declared average bystander position A-Weighted sound pressure levels (LpAm) when the product is operating in a 23°C ambient environment. Noise emissions were measured in accordance with ISO 7779 (ECMA 74) and declared in accordance with ISO 9296 (ECMA 109). The listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels. Please have your HPE representative provide information from the HPE EMESC website for further technical details regarding the configurations listed below.

Idle	
LWAd	5.0 B Entry 5.2 B Base 5.7 B Perf
LpAm	32 dBA Entry 34 dBA Base 44 dBA Perf
Operating	
LWAd	5.0 B Entry 5.3 B Base 6.4 B Perf
LpAm	32 dBA Entry 37 dBA Base 48 dBA Perf

Notes:

- Acoustics levels presented here are generated by the test configuration only. Acoustics levels will vary depending on system configuration. Values are subject to change without notification and are for reference only.
- Product conformance to cited product specifications is based on sample (type) testing, evaluation, or assessment. This product or family of products is eligible to bear the appropriate compliance logos and statements.
- The Listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels.

Environment-friendly Products and Approach - End-of-life Management and Recycling

Hewlett Packard Enterprise offers **end-of-life product return, trade-in, and recycling programs**, in many geographic areas, for our products. Products returned to Hewlett Packard Enterprise will be recycled, recovered or disposed of in a responsible manner.

The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard Enterprise web site. These instructions may be used by recyclers and other WEEE treatment facilities as well as Hewlett Packard Enterprise OEM customers who integrate and re-sell Hewlett Packard Enterprise equipment.

Summary of Changes

Date	Version History	Action	Description of Change
18-Mar-2024	Version 31	Changed	Standard Features, Service and Support, Core Options and Additional Options sections were updated.
04-Dec-2023	Version 30	Changed	Service and Support, Configuration Information and Core Options sections were updated.
11-Sep-2023	Version 29	Changed	Standard Features, Configuration Information, Core Options, and Additional Options sections were updated.
01-May-2023	Version 28	Changed	Optional Features and Additional Options sections were updated.
12-Dec-2022	Version 27	Changed	Optional Features and Additional Options sections were updated. Obsolete SKUs were removed
01-Aug-2022	Version 26	Changed	Configuration Information section was updated. Obsolete SKUs were removed
18-Jul-2022	Version 25	Changed	Additional Options section was updated. Obsolete SKUs were removed
02-May-2022	Version 24	Changed	Additional Options section was updated. Obsolete SKUs were removed
07-Feb-2022	Version 23	Changed	Configuration Information section was updated. Obsolete SKUs were removed
06-Dec-2021	Version 22	Changed	Standard Features, Core Options and Additional Options sections were updated. Obsolete SKUs were removed
01-Nov-2021	Version 21	Changed	Standard Features, Core Options, Service and Support and Additional Options sections were updated.
07-Sep-2021	Version 20	Changed	Pre-configured Models and Core Options sections were updated. Obsolete SKUs were removed
02-Aug-2021	Version 19	Changed	Standard Features and Core Options sections were updated.
14-Jun-2021	Version 18	Changed	Standard Features, Configuration Information, Core Options and Additional Options sections were updated. Obsolete SKUs were removed
04-May-2021	Version 17	Changed	Standard Features, Core Options and Additional Options sections were updated. Obsolete SKUs were removed
06-Apr-2021	Version 16	Changed	Service and Support, Core Options and Additional Options sections were updated. Obsolete SKU was removed
15-Feb-2021	Version 15	Changed	Core Options section was updated.
01-Feb-2021	Version 14	Changed	Core Options section was updated. Obsolete SKUs were removed
07-Dec-2020	Version 13	Changed	Overview, Configuration Information, Core Options and Additional Options sections were updated. Obsolete SKU was removed
09-Nov-2020	Version 12	Changed	Core Options Section was updated.
02-Nov-2020	Version 11	Changed	Standard Features and Pre-configured Models sections were updated. Obsolete SKUs were removed
05-Oct-2020	Version 10	Changed	Core Options and Additional Options sections were updated. Obsolete SKU was removed
03-Aug-2020	Version 9	Changed	Standard Features and Core Options sections were updated.
08-Jun-2020	Version 8	Changed	Standard Features, Configuration Information and Core Options sections were updated.
04-May-2020	Version 7	Changed	Pre-configured Models and Core Options sections were updated.
06-Apr-2020	Version 6	Changed	Configuration Information, Core Options, Additional Options, Memory and Technical Specifications sections were updated.
09-Mar-2020	Version 5	Changed	Core Options and Adittional Options sections were updated.

Summary of Changes

Date	Version History	Action	Description of Change
24-Feb-2020	Version 4	Changed	Overview, Standard Features, Pre-configured Models, Configuration Information, Additional Options, Core Options sections were updated. Obsolete SKU was removed
17-Feb-2020	Version 3	Changed	SKUs descriptions were updated.
23-Dec-2019	Version 2	Changed	Core Options Section was updated.
02-Dec-2019	Version 1	New	New QuickSpecs.

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Hewlett Packard Enterprise

For hard drives, 1GB = 1 billion bytes. Actual formatted capacity is less

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